



NASA SP-7039(15)

Section 2

Indexes

NASA

PATENT ABSTRACTS BIBLIOGRAPHY

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

JULY 1979

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ACCESSION NUMBER RANGES

<i>Bibliography Number</i>	<i>STAR Accession Numbers</i>
NASA SP-7039(04)	N69-20701-N73-33931
NASA SP-7039(12)	N74-10001-N77-34042
NASA SP-7039(13)	N78-10001-N78-22018
NASA SP-7039(14)	N78-22019-N78-34034
NASA SP-7039(15)	N79-10001-N79-21993

NASA

**PATENT
ABSTRACTS
BIBLIOGRAPHY**

A CONTINUING BIBLIOGRAPHY

Section 2 • Indexes

Indexes for the annotated references to NASA-owned inventions covered by U.S. patents and applications for patent that were announced in *Scientific and Technical Aerospace Reports (STAR)* between May 1969 and June 1979. This issue supersedes all previous Index Sections.



Scientific and Technical Information Branch
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

JULY 1979
Washington, D.C.

1975

over 100

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INTRODUCTION

Several thousand inventions result each year from the aeronautical and space research supported by the National Aeronautics and Space Administration. The inventions having important use in government programs or significant commercial potential are usually patented by NASA. These inventions cover practically all fields of technology and include many that have useful and valuable commercial application.

NASA inventions best serve the interests of the United States when their benefits are available to the public. In many instances, the granting of nonexclusive or exclusive licenses for the practice of these inventions may assist in the accomplishment of this objective. This bibliography is published as a service to companies, firms, and individuals seeking new, licensable products for the commercial market.

The *NASA Patent Abstracts Bibliography (NASA PAB)* is a semiannual NASA publication containing comprehensive abstracts and indexes of NASA-owned inventions covered by U.S. patents and applications for patent. The citations included in *NASA PAB* were originally published in NASA's *Scientific and Technical Aerospace Reports (STAR)* and cover *STAR* announcements made since May 1969.

For the convenience of the user, each issue of *NASA PAB* has a separately bound Abstract Section (Section 1) and Index Section (Section 2). Although each Abstract Section covers only the indicated six-month period, the Index Section is cumulative covering all NASA-owned inventions announced in *STAR* since 1969. Thus a complete set of *NASA PAB* would consist of the Abstract Sections of Issue 04 (January 1974) and Issue 12 (January 1978) and the Abstract Section for all subsequent issues and the Index Section for the most recent issue.

The 240 citations published in this issue of the Abstract Section cover the period January 1979 through June 1979. The Index Section contains references to the 3632 citations covering the period May 1969 through June 1979.

ABSTRACT SECTION (SECTION 1)

This *PAB* issue incorporates the 1975 *STAR* category revisions which include 10 major subdivisions divided into 74 specific categories and one general category/division. (See Table of Contents for the scope note of each category under which are grouped appropriate NASA inventions.) This new scheme was devised in lieu of the 34 category divisions which were utilized in *PAB* supplements (01) through (06) covering *STAR* abstracts from May 1969 through January 1974. Each entry in the Abstract Section consists of a *STAR* citation accompanied by an abstract and a key illustration taken from the patent or application for patent drawing. Entries are arranged in subject category in order of the ascending NASA Accession Number originally assigned in *STAR* to the invention. The range of NASA Accession Numbers within each issue is printed on the inside front cover.

Abstract Citation Data Elements: Each of the abstract citations has several data elements useful for identification and indexing purposes, as follows:

NASA Accession Number
NASA Case Number
Inventor's Name

Title of Invention

U.S. Patent Application Serial Number

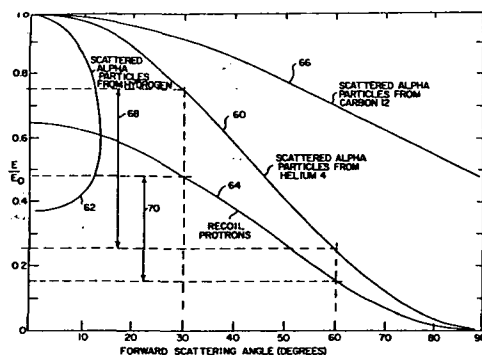
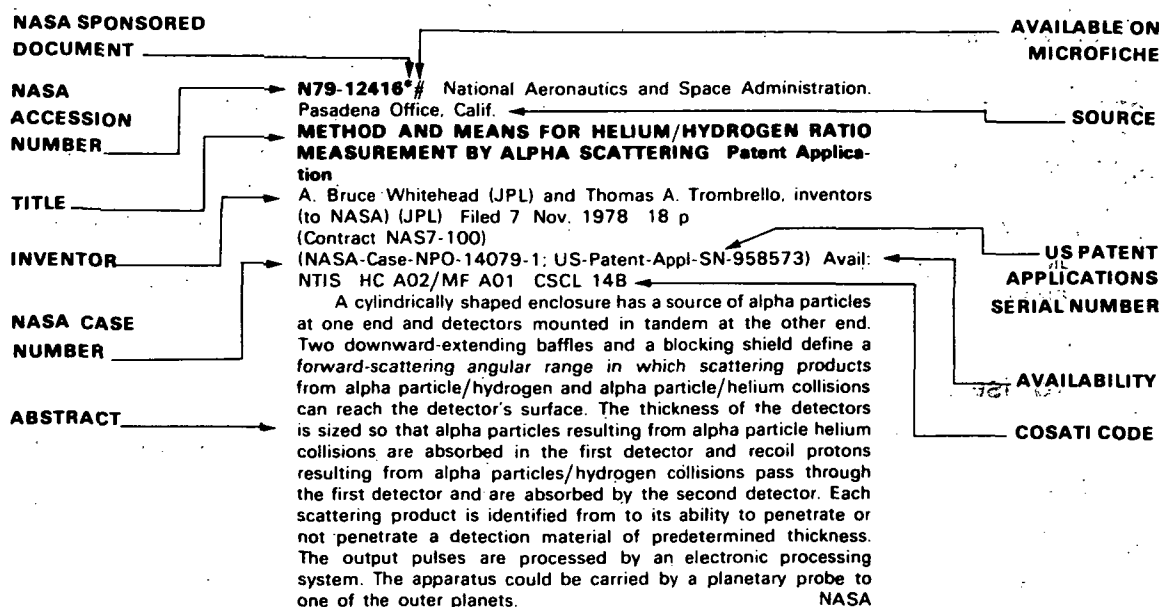
U.S. Patent Number (for issued patents only)

U.S. Patent Office Classification Number(s)

(for issued patents only)

These data elements in the citation of the abstract as depicted in the Typical Citation and Abstract reproduced below and are also used in the several indexes.

TYPICAL CITATION AND ABSTRACT



KEY ILLUSTRATION

INDEX SECTION (SECTION 2)

The Index Section is divided into five indexes which are cross-indexed and are useful in locating a single invention or groups of inventions.

Each of the five indexes utilizes basic data elements: (1) Subject Category Number, (2) NASA Accession Number, and (3) NASA Case Number, in addition to other specific index terms.

Subject Index: Lists all inventions according to appropriate alphabetized technical term and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Inventor Index: Lists all inventions according to alphabetized names of inventors and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Source Index: Lists all inventions according to alphabetized source of invention (i.e., name of contractor or government installation where invention was made) and indicates the related NASA Case Number, the Subject Category Number, and the NASA Accession Number.

Number Index: Lists inventions in order of ascending (1) NASA Case Number, (2) U.S. Patent Application Serial Number, (3) U.S. Patent Classification Number, and (4) U.S. Patent Number and indicates the related Subject Category Number and the NASA Accession Number.

Accession Number Index: Lists all inventions in order of ascending NASA Accession Number and indicates the related Subject Category Number, the NASA Case Number, the U.S. Patent Application Serial Number, the U.S. Patent Classification Number, and the U.S. Patent Number.

HOW TO USE THIS PUBLICATION TO IDENTIFY NASA INVENTIONS

To identify one or more NASA inventions within a specific technical field or subject, several techniques are possible when using the flexibility incorporated into the *NASA PAB*.

(1) *Using Subject Category:* To identify all NASA inventions in any one of the subject categories in this issue of *NASA PAB*, select the desired Subject Category in the Abstract Section (Section 1) and find the inventions abstracted thereunder.

(2) *Using Subject Index:* To identify all NASA inventions listed under a desired technical subject index term, (A) turn to the cumulative Subject Index in the Index Section and find the invention(s) listed under the desired technical subject term. (B) Note the indicated Accession Number and the Subject Category Number. (C) Using the indicated Accession Number, turn to the inside front cover of the Index Section to determine which issue of the Abstract Section includes the Accession Number desired. (D) To find the abstract of the particular invention in the issue of the Abstract Section selected, (i) use the Subject Category Number to locate the Subject Category and (ii) use the Accession Number to locate the desired invention within the Subject Category listing.

(3) *Using Patent Classification Index:* To identify all inventions covered by issued NASA patents (does not include applications for patent) within a desired Patent Classification, (A) turn to the Patent Classification Number in the Number Index of Section 2 and find the associated inventions(s), and (B) follow the instructions outlined in (2)(B), and (D) above.

PUBLIC AVAILABILITY OF COPIES OF PATENTS AND PATENT APPLICATIONS

Copies of U.S. patents may be purchased directly from the U.S. Patent and Trademark Office, Washington, D.C. 20231, for fifty cents a copy. When ordering patents, the U.S. Patent Number should be used, and payment must be remitted in advance, preferably by money order or check payable to the Commissioner of Patents and Trademarks. Prepaid purchase coupons for ordering are also available from the Patent and Trademark Office.

NASA patent application specifications are sold in paper copy by the National Technical Information Service at price code A02 (\$4.00 domestic; \$8.00 foreign). Microfiche are sold at price code A01 (\$3.00 domestic; \$4.50 foreign). The US-Patent-Appl-SN-number should be used in ordering either paper copy or microfiche from NTIS.

LICENSES FOR COMMERCIAL USE: INQUIRIES AND APPLICATIONS FOR LICENSE

NASA inventions, abstracted in *NASA PAB*, are available for nonexclusive or exclusive licensing in accordance with the NASA Patent Licensing Regulations. It is significant that all licenses for NASA inventions shall be by express written instruments and that no license will be granted or implied in a NASA invention except as provided in the NASA Patent Licensing Regulations.

Inquiries concerning the NASA Patent Licensing Program or the availability of licenses for the commercial use of NASA-owned inventions covered by U.S. patents or pending applications for patent should be forwarded to the NASA Patent Counsel of the NASA installation having cognizance of the specific invention, or the Assistant General Counsel for Patent Matters, Code GP-4, National Aeronautics and Space Administration, Washington, D.C. 20546. Inquiries should refer to the NASA Case Number, the Title of the Invention, and the U.S. Patent Number or the U.S. Application Serial Number assigned to the invention as shown in *NASA PAB*.

The NASA Patent Counsel having cognizance of the invention is determined by the first three letters or prefix of the NASA Case Number assigned to the invention. The addresses of NASA Patent Counsels are listed alongside the NASA Case Number prefix letters in the following table. Formal application of license must be submitted on the NASA Form, Application for NASA Patent License which is available upon request from any NASA Patent Counsel.

**NASA Case
Number
Prefix Letters**

**Address of Cognizant
NASA Patent Counsel**

ARC-xxxxx
XAR-xxxxx

Ames Research Center
Mail Code: 200-11A
Moffett Field, California 94035
Telephone: (415)965-5104

ERC-xxxxx
XER-xxxxx
HQN-xxxxx
XHQ-xxxxx

NASA Headquarters
Mail Code: GP-4
Washington, D.C. 20546
Telephone: (202)755-3954

GSC-xxxxx
XGS-xxxxx

Goddard Space Flight Center
Mail Code: 204
Greenbelt, Maryland 20771
Telephone: (301)344-7351

KSC-xxxxx
XKS-xxxxx

John F. Kennedy Space Center
Mail Code: AA-PAT
Kennedy Space Center, Florida 32899
Telephone: (305)867-2544

LAR-xxxxx
XLA-xxxxx

Langley Research Center
Mail Code: 456
Hampton, Virginia 23365
Telephone: (804)827-3725

LEW-xxxxx
XLE-xxxxx

Lewis Research Center
Mail Code: 500-311
21000 Brookpark Road
Cleveland, Ohio 44135
Telephone: (216)433-6346

MSC-xxxxx
XMS-xxxxx

Lyndon B. Johnson Space Center
Mail Code: AM
Houston, Texas 77058
Telephone: (713)483-4871

MFS-xxxxx
XMF-xxxxx

George C. Marshall Space Flight
Center
Mail Code: CC01
Huntsville, Alabama 35812
Telephone: (205)453-0020

NPO-xxxxx
XNP-xxxxx
FRC-xxxxx
XFR-xxxxx
WOO-xxxxx

NASA Resident Legal Office
Mail Code: 180-601
4800 Oak Grove Drive
Pasadena, California 91103
Telephone: (213)354-2700

PATENT LICENSING REGULATIONS

THE 14—AERONAUTICS AND SPACE

Chapter V—National Aeronautics and Space Administration

PART 1245—PATENTS

Subpart 2—Patent Licensing Regulations

1. Subpart 2 is revised in its entirety as follows:

Sec.	
1245.200	Scope of subpart.
1245.201	Definitions.
1245.202	Basic considerations.
1245.203	Licenses for practical application of inventions.
1245.204	Other licenses.
1245.205	Publication of NASA inventions available for license.
1245.206	Application for nonexclusive license.
1245.207	Application for exclusive license.
1245.208	Processing applications for license.
1245.209	Royalties and fees.
1245.210	Reports.
1245.211	Revocation of licenses.
1245.212	Appeals.
1245.213	Litigation.
1245.214	Address of communications.

Authority: The provisions of this Subpart 2 issued under 42 U.S.C. 2457, 2478(b) (3).

§ 1245.200 Scope of subpart.

This Subpart 2 prescribes the terms, conditions, and procedures for licensing inventions covered by U.S. patents and patent applications for which the Administrator of the National Aeronautics and Space Administration holds title on behalf of the United States.

§ 1245.201 Definitions.

For the purpose of this subpart, the following definitions apply:

(a) "Invention" means an invention covered by a U.S. patent or patent application for which the Administrator of NASA holds title on behalf of the United States and which is designated by the Administration as appropriate for the grant of license(s) in accordance with this subpart.

(b) "To practice an invention" means to make or have made, use or have used, sell or have sold, or otherwise dispose of according to law any machine, article of manufacture or composition of matter physically embodying the invention, or to use or have used the process or method comprising the invention.

(c) "Practical application" means the manufacture in the case of a composition of matter or product, the use in the case of a process, or the operation in the case of a machine, under such conditions as to establish that the invention is being utilized and that its benefits are reasonably accessible to the public.

(d) "Special invention" means any invention designated by the NASA Assistant General Counsel for Patent Matters to be subject to short-form licensing procedures. An invention may be designated as a special invention when a determination is made that:

(1) Practical application has occurred and is likely to continue for the life of

the patent and for which an exclusive license is not in force, or

(2) The public interest would be served by the expeditious granting of a nonexclusive license for practice of the invention by the public.

(e) The "Administrator" means the Administrator of the National Aeronautics and Space Administration, or his designee.

(f) "Government" means the Government of the United States of America.

(g) The "Inventions and Contributions Board" means the NASA Inventions and Contributions Board established by the Administrator of NASA within the Administration in accordance with section 305 of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457).

§ 1245.202 Basic considerations.

(a) Much of the new technology resulting from NASA sponsored research and development in aeronautical and space activities has application in other fields. NASA has special authority and responsibility under the National Aeronautics and Space Act of 1958, as amended (42 U.S.C. 2451), to provide for the widest practical dissemination and utilization of this new technology. In addition, NASA has been given unique requirements to protect the inventions resulting from NASA activities and to promulgate licensing regulations to encourage commercial use of these inventions.

(b) NASA-owned inventions will best serve the interests of the United States when they are brought to practical application in the shortest time possible. Although NASA encourages the non-exclusive licensing of its inventions to promote competition and achieve their widest possible utilization, the commercial development of certain inventions calls for a substantial capital investment which private manufacturers may be unwilling to risk under a nonexclusive license. It is the policy of NASA to seek exclusive licensees when such licensees will provide the necessary incentive to the licensee to achieve early practical application of the invention.

(c) The Administrator, in determining whether to grant an exclusive license, will evaluate all relevant information submitted by applicants and all other persons and will consider the necessity for further technical and market development of the invention, the capabilities of prospective licensees, their proposed plans to undertake the required investment and development, the impact on competitors, and the benefits of the license to the Government and to the public. Preference for exclusive license shall be given to U.S. citizens or companies who intend to manufacture or use, in the case of a process, the invention in the United States of America, its territories and possessions. Consideration may also be given to assisting small businesses and minority business enterprises, as well as economically depressed, low income and labor surplus areas.

(d) All licenses for inventions shall

be by express written instruments. No license shall be granted either expressly or by implication, for a NASA invention except as provided for in §§ 1245.203 and 1245.204 and in any existing or future treaty or agreement between the United States and any foreign government.

(e) Licenses for inventions covered by NASA-owned foreign patents and patent applications shall be granted in accordance with the NASA Foreign Patent Licensing Regulations (§ 1245.4).

§ 1245.203 Licenses for practical application of inventions.

(a) *General.* As an incentive to encourage practical application of inventions, licenses will be granted to responsible applicants according to the circumstances and conditions set forth in this section.

(b) *Nonexclusive licenses.* (1) Each invention will be made available to responsible applicants for nonexclusive, revocable licensing in accordance with § 1245.206, consistent with the provisions of any existing exclusive license.

(2) The duration of the license shall be for a period as specified in the license.

(3) The license shall require the licensee to achieve the practical application of the invention and to then practice the invention for the duration of the license.

(4) The license may be granted for all or less than all fields of use of the invention and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(5) The license shall extend to the subsidiaries and affiliates of the licensee and shall be nonassignable without approval of the Administrator, NASA, except to the successor of that part of the licensee's business to which the invention pertains.

(c) *Short-form nonexclusive licenses.* A nonexclusive, revocable license for a special invention, as defined in § 1245.201 (d), shall be granted upon written request, to any applicant by the Patent Counsel of the NASA Installation having cognizance of the invention.

(d) *Exclusive licenses.* (1) A limited exclusive license may be granted on an invention available for such licensing provided that:

(i) The Administrator has determined that: (a) The invention has not been brought to practical application by a nonexclusive licensee in the fields of use or in the geographical locations covered by the application for the exclusive license, (b) practical application of the invention in the fields of use or geographical locations covered by the application for the exclusive license is not likely to be achieved expeditiously by the further funding of the invention by the Government or under a nonexclusive license requested by any applicant pursuant to these regulations, and (c) the exclusive license will provide the necessary incentive to the licensee to achieve the practical application of the invention; and

(ii) Either a notice pursuant to

PATENT LICENSING REGULATIONS

§ 1245.205 listing the invention as available for licensing has been published in the *FEDERAL REGISTER* for at least 9 months; or a patent covering the invention has been issued for at least 6 months. However, a limited exclusive license may be granted prior to the periods specified above if the Administrator determines that the public interest will best be served by the earlier grant of an exclusive license.

(2) The license may be granted for all or less than all fields of use of the invention, and throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(3) The exclusive period of the license shall be negotiated, but shall be for less than the terminal portion of the patent, and shall be related to the period necessary to provide a reasonable incentive to invest the necessary risk capital.

(4) The license shall require the licensee to practice the invention within a period specified in the license and then to achieve practical application of the invention.

(5) The license shall require the licensee to expend a specified minimum sum of money and/or to take other specified actions, within indicated period(s) after the effective date of the license, in an effort to achieve practical application of the invention.

(6) The license shall be subject to at least an irrevocable royalty-free right of the Government of the United States to practice and have practiced the invention throughout the world by or on behalf of the Government of the United States and on behalf of any foreign government pursuant to any existing or future treaty or agreement with the United States.

(7) The license may reserve to the Administrator, NASA, under the following circumstances, the right to require the granting of a sublicense to responsible applicant(s) on terms that are considered reasonable by the Administrator, taking into consideration the current royalty rates under similar patents and other pertinent facts: (i) To the extent that the invention is required for public use by Government regulation, or (ii) as may be necessary to fulfill health or safety needs, or (iii) for other purposes stipulated in the license.

(8) The license shall be nontransferable except to the successor of that part of the licensee's business to which the invention pertains.

(9) Subject to the approval of the Administrator, the licensee may grant sublicenses under the license. Each sublicense granted by an exclusive licensee shall make reference to and shall provide that the sublicense is subject to the terms of the exclusive license including the rights retained by the Government under the exclusive license. A copy of each sublicense shall be furnished to the Administrator.

(10) The license may be subject to such other reservations as may be in the public interest.

§ 1245.204 Other licenses.

(a) *License to contractor.* There is

hereby granted to the contractor reporting an invention made in the performance of work under a contract of NASA in the manner specified in section 305(a) (1) or (2) of the National Aeronautics and Space Act of 1958 as amended (42 U.S.C. 2457(a) (1) or (2)), a revocable, nonexclusive, royalty-free license for the practice of such invention, together with the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. Such license and right is nontransferable except to the successor of that part of the contractor's business to which the invention pertains.

(b) *Miscellaneous licenses.* Subject to any outstanding licenses, nothing in this subpart 2 shall preclude the Administrator from granting other licenses for inventions, when he determines that do so would provide for an equitable distribution of rights. The following exemplify circumstances wherein such licenses may be granted:

(1) In consideration of the settlement of an interference;

(2) In consideration of a release of a claim of infringement; or

(3) In exchange for or as part of the consideration for a license under adversely held patent(s).

§ 1245.205 Publication of NASA inventions available for license.

(a) A notice will be periodically published in the *FEDERAL REGISTER* listing inventions available for licensing. Abstracts of the inventions will also be published in the NASA Scientific and Technical Aerospace Reports (STAR) and other NASA publications.

(b) Copies of pending patent applications for inventions abstracted in STAR may be purchased from the National Technical Information Service, Springfield, Va. 22161.

§ 1245.206 Application for nonexclusive license.

(a) *Submission of application.* An application for nonexclusive license under § 1245.203(b) or a short-form nonexclusive license for special inventions under § 1245.203(c) shall be addressed to the NASA Patent Counsel of the NASA installation having cognizance over the NASA invention for which a license is desired or to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for nonexclusive license.* An application for nonexclusive license under § 1245.203(b) shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number of patent number, title and date, if known;

(2) Name and address of the person, company or organization applying for license and whether the applicant is a U.S. citizen or a U.S. corporation;

(3) Name and address of representative of applicant to whom correspondence should be sent;

(4) Nature and type of applicant's business;

(5) Number of employees;

(6) Purpose for which license is desired;

(7) A statement that contains the applicant's best knowledge of the extent to which the invention is being practiced by private industry and the Government;

(8) A description of applicant's capability and plan to undertake the development and marketing required to achieve the practical application of the invention, including the geographical location where the applicant plans to manufacture or use, in the case of a process, the invention; and

(9) A statement indicating the minimum term of years the applicant desires to be licensed.

(c) *Contents of an application for a short-form nonexclusive license.* An application for a short-form nonexclusive license under § 1245.203(c) for a special invention shall include:

(1) Identification of invention for which license is desired, including the NASA patent case number, patent application serial number or patent number, title and date, if known;

(2) Name and address of company or organization applying for license; and

(3) Name and address of representative of applicant to whom correspondence should be sent.

§ 1245.207 Application for exclusive license.

(a) *Submission of application.* An application for exclusive license under § 1245.203(d) may be submitted to NASA at any time. An application for exclusive license shall be addressed to the NASA Assistant General Counsel for Patent Matters.

(b) *Contents of an application for exclusive license.* In addition to the requirements set forth in § 1245.206(b), the application for an exclusive license shall include:

(1) Applicant's status, if any, in any one or more of the following categories:

(i) Small business firm;

(ii) Minority business enterprise;

(iii) Location in a surplus labor area;

(iv) Location in a low-income urban area; and

(v) Location in an area designed by the Government as economically depressed.

(2) A statement indicating the time, expenditure, and other acts which the applicant considers necessary to achieve practical application of the invention, and the applicant's offer to invest that sum and to perform such acts if the license is granted;

(3) A statement whether the applicant would be willing to accept a license for all or less than all fields of use of the invention throughout the United States of America, its territories and possessions, Puerto Rico, and the District of Columbia, or in any lesser geographic portion thereof.

(4) A statement indicating the amount of royalty fees or other consideration, if any, the applicant would be willing to pay the Government for the exclusive license; and

(5) Any other facts which the applicant believes to show it to be in the interests of the United States of America for the Administrator to grant an exclusive license rather than a nonexclusive li-

PATENT LICENSING REGULATIONS

cense and that such an exclusive license should be granted to the applicant.

§ 1245.208 Processing applications for license.

(a) *Initial review.* Applications for nonexclusive and exclusive licenses under §§ 1245.206 and 1245.207 will be reviewed by the Patent Counsel of the NASA Installation having cognizance for the invention and the NASA Assistant General Counsel for Patent Matters, to determine the conformity and appropriateness of the application for license and the availability of the specific invention for the license requested. The Assistant General Counsel for Patent Matters will forward all applications for license conforming to §§ 1245.206(b) and 1245.207(b) to the NASA Inventions and Contributions Board when the invention is available for consideration of the requested license. Prior to forwarding applications for exclusive licenses to the Inventions and Contributions Board, notice in writing will be given to each nonexclusive licensee for the specific invention advising of the receipt of the application for the exclusive license and providing each nonexclusive licensee with a 30-day period for submitting either evidence that practical application of the invention has occurred or is about to occur or, an application for an exclusive license for the invention.

(b) *Recommendations of Inventions and Contributions Board.* The Inventions and Contributions Board shall, in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, evaluate all applications for license forwarded by the Assistant General Counsel for Patent Matters. Based upon the facts presented to the Inventions and Contributions Board in the application and any other facts in its possession, the Inventions and Contributions Board shall recommend to the Administrator: (1) Whether a nonexclusive or exclusive license should be granted, (2) the identity of the licensee, and (3) any special terms or conditions of the license.

(c) *Determination of Administrator and grant of nonexclusive licenses.* The Administrator shall review the recommendations of the Inventions and Contributions Board and shall determine whether to grant the nonexclusive license as recommended by the Board. If the Administrator determines to grant the license, the license will be granted upon the negotiation of the appropriate terms and conditions of the Office of General Counsel.

(d) *Determination of Administrator and grant of exclusive licenses—(1) Notice.* If the Administrator determines that the best interest of the United States will be served by the granting of an exclusive license in accordance with the basic considerations set forth in §§ 1245.202 and 1245.203, a notice shall be published in the FEDERAL REGISTER announcing the intent to grant the exclusive license, the identification of the invention, special terms or conditions of the proposed license, and a statement that NASA will grant the exclusive license unless within 30 days of the publication of such notice the Inventions and Contributions Board receives in writing

any of the following together with supporting documentation:

(i) A statement from any person setting forth reasons why it would not be in the best interest of the United States to grant the proposed exclusive license; or

(ii) An application for a nonexclusive license under such invention, in accordance with § 1245.206(b), in which applicant states that he has already brought or is likely to bring the invention to practical application within a reasonable period.

The Inventions and Contributions Board shall, upon receipt of a written request within the 30 days' notice period, grant an extension of 30 days for the submission of the documents designated above.

(2) *Recommendation of Inventions and Contributions Board.* Upon the expiration of the period required by subparagraph (1) of this paragraph, the Board shall review all written responses to the notice and shall then recommend to the Administrator whether to grant the exclusive license as the Board initially recommended or whether a different form of license, if any, should instead be granted.

(3) *Grant of exclusive licenses.* The Administrator shall review the Board's recommendation and shall determine if the interest of the United States would best be served by the grant of an exclusive license as recommended by the Board. If the Administrator determines to grant the exclusive license, the license will be granted upon the negotiation of the appropriate terms and conditions by the Office of General Counsel.

§ 1245.209 Royalties and fees.

(a) Normally, a nonexclusive license for the practical application of an invention granted to a U.S. citizen or company will not require the payment of royalties; however, NASA may require other consideration.

(b) An exclusive license for an invention may require the payment of royalties, fees or other consideration when the licensing circumstances and the basic considerations in § 1245.202, considered together, indicate that it is in the public interest to do so.

§ 1245.210 Reports.

A license shall require the licensee to submit periodic reports of his efforts to work the invention. The reports shall contain information within his knowledge, or which he may acquire under normal business practice, pertaining to the commercial use that is being made of the invention and such other information which the Administrator may determine pertinent to the licensing program and which is specified in the license.

§ 1245.211 Revocation of licenses.

(a) Any license granted pursuant to § 1245.203 may be revoked, either in part or in its entirety, by the Administrator if in his opinion the licensee at any time shall fail to use adequate efforts to bring to or achieve practical application of the invention in accordance with the terms of the license, or if the licensee at any

time shall default in making any report required by the license, or shall make any false report, or shall commit any breach of any covenant or agreement therein contained, and shall fail to remedy any such default, false report, or breach within 30 days after written notice, or if the patent is deemed unenforceable either by the Attorney General or a final decision of a U.S. court.

(b) Any license granted pursuant to § 1245.204(a) may be revoked, either in part or in its entirety, by the Administrator if in his opinion such revocation is necessary to achieve the earliest practical application of the invention pursuant to an application for exclusive license submitted in accordance with § 1245.207, or the licensee at any time shall breach any covenant or agreement contained in the license, and shall fail to remedy any such breach within 30 days after written notice thereof.

(c) Before revoking any license granted pursuant to this Subpart 2 for any cause, there will be furnished to the licensee a written notice of intention to revoke the license, and the licensee will be allowed 30 days after such notice in which to appeal and request a hearing before the Inventions and Contributions Board on the question of revocation. After a hearing, the Inventions and Contributions Board shall transmit to the Administrator the record of proceedings, its findings of fact, and its recommendation whether the license should be revoked either in part or in its entirety. The Administrator shall review the recommendation of the Board and determine whether to revoke the license in part or in its entirety. Revocation of all a license shall include revocation of all sublicenses which have been granted.

§ 1245.212 Appeals.

Any person desiring to file an appeal pursuant to § 1245.211(c) shall address the appeal to Chairman, Inventions and Contributions Board. Any person filing an appeal shall be afforded an opportunity to be heard before the Inventions and Contributions Board, and to offer evidence in support of his appeal. The procedures to be followed in any such matter shall be determined by the Administrator. The Board shall make findings of fact and recommendations with respect to disposition of the appeal. The decision on the appeal shall be made by the Administrator, and such decision shall be final and conclusive, except on questions of law, unless determined by a court of competent jurisdiction to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence.

§ 1245.213 Litigation.

An exclusive licensee shall be granted the right to sue at his own expense any party who infringes the rights set forth in his license and covered by the licensed patent. The licensee may join the Government, upon consent of the Attorney General, as a party complainant in such suit, but without expense to the Government and the licensee shall pay costs and any final judgment or decree that may be rendered against the Govern-

PATENT LICENSING REGULATIONS

ment in such suit. The Government shall also have an absolute right to intervene in any such suit at its own expense. The licensee shall be obligated to promptly furnish to the Government, upon request, copies of all pleadings and other papers filed in any such suit and of evidence adduced in proceedings relating to the licensed patent including, but not limited to, negotiations for settlement and agreements settling claims by a licensee based on the licensed patent, and all other books, documents, papers, and

records pertaining to such suit. If, as a result of any such litigation, the patent shall be declared invalid, the licensee shall have the right to surrender his license and be relieved from any further obligation thereunder.

§ 1245.214 Address of communications.

(a) Communications to the Assistant General Counsel for Patent Matters in accordance with §§ 1245.206 and 1245.207 and requests for information concerning licenses for NASA inventions should be

addressed to the Assistant General Counsel for Patent Matters, Code GP, National Aeronautics and Space Administration, Washington, D.C. 20546.

(b) Communications to the Inventions and Contributions Board in accordance with §§ 1245.208, 1245.211, and 1245.212 should be addressed to Chairman, Inventions and Contributions Board, National Aeronautics and Space Administration, Washington, D.C. 20546.

Effective date. The regulations set forth in this subpart 2 are effective April 1, 1972.

JAMES C. FLETCHER,
Administrator.

FOREIGN PATENT LICENSING REGULATIONS

Selected NASA inventions are also available for licensing in countries other than the United States in accordance with the NASA Foreign Patent Licensing Regulation (14 C.F.R. 1245.4), a copy of which is available from any NASA Patent Counsel. For abstracts of NASA-owned inventions available for licensing in countries other than the United States, see NASA SP-7038, "Significant NASA Inventions Available for Licensing in Countries Other Than the United States." A copy of this NASA publication is available from NASA Headquarters, Code GP-4, Washington, D.C., 20546.

Subject Categories

(1969 - 1973)

01 Aerodynamics

Includes aerodynamics of bodies, combinations, internal flow in ducts and turbomachinery; wings, rotors, and control surfaces. For applications see: 02 Aircraft and 32 Space Vehicles. For related information see also: 12 Fluid Mechanics; and 33 Thermodynamics and Combustion.

02 Aircraft

Includes fixed-wing airplanes, helicopters, gliders, balloons, ornithopters, etc.; and specific types of complete aircraft (e.g., ground effect machines, STOL, and VTOL); flight tests; operating problems (e.g., sonic boom); safety and safety devices; economics; and stability and control. For basic research see: 01 Aerodynamics. For related information see also: 31 Space Vehicles; and 32 Structural Mechanics.

03 Auxiliary Systems

Includes fuel cells, energy conversion cells, and solar cells; auxiliary gas turbines; hydraulic, pneumatic and electrical systems; actuators; and inverters. For related information see also: 09 Electronic Equipment; 22 Nuclear Engineering; and 28 Propulsion Systems.

04 Biosciences

Includes aerospace medicine, exobiology, radiation effects on biological systems; physiological and psychological factors. For related information see also: 05 Biotechnology.

05 Biotechnology

Includes life support systems, human engineering; protective clothing and equipment; crew training and evaluation, and piloting. For related information see also: 04 Biosciences.

06 Chemistry

Includes chemical analysis and identification (e.g., spectroscopy). For applications see: 17 Materials, Metallic; 18 Materials, Nonmetallic; and 27 Propellants.

07 Communications

Includes communications equipment and techniques; noise; radio and communications blackout; modulation telemetry, tracking radar and optical observation; and wave propagation. For basic research see: 23 Physics, General; and 21 Navigation.

08 Computers

Includes computer operation and programming; and data processing. For applications, see specific categories. For related information see also: 19 Mathematics.

09 Electronic Equipment

Includes electronic test equipment and maintainability; component parts, e.g., electron tubes, tunnel diodes, transistors, integrated circuitry; microminiaturization. For basic research see: 10 Electronics. For related information see also: 07 Communications and 21 Navigation.

10 Electronics

Includes circuit theory; and feedback and control theory. For applications see: 09 Electronic Equipment. For related information see specific Physics categories.

11 Facilities, Research and Support

Includes airports; lunar and planetary bases including associated vehicles; ground support systems; related logistics; simulators; test facilities (e.g., rocket engine test stands, shock tubes, and wind tunnels); test ranges; and tracking stations.

12 Fluid Mechanics

Includes boundary-layer flow; compressible flow; gas dynamics; hydrodynamics; and turbulence. For related information see also: 01 Aerodynamics; and 33 Thermodynamics and Combustion.

13 Geophysics

Includes aeronomy; upper and lower atmosphere studies; oceanography; cartography; and geodesy. For related information see also: 20 Meteorology; 29 Space Radiation; and 30 Space Sciences.

14 Instrumentation and Photography

Includes design, installation, and testing of instrumentation systems; gyroscopes; measuring instruments and gages; recorders, transducers; aerial photography; and telescopes and cameras.

15 Machine Elements and Processes

Includes bearings, seals, pumps, and other mechanical equipment; lubrication, friction, and wear; manufacturing processes and quality control; reliability; drafting; and materials fabrication, handling, and inspection.

16 Masers

Includes applications of masers and lasers. For basic research see: 26 Physics, Solid-State.

17 Materials, Metallic

Includes cermets; corrosion; physical and mechanical properties of materials; metallurgy; and applications as structural materials. For basic research see: 06 Chemistry. For related information see also: 18 Materials, Nonmetallic; and 32 Structural Mechanics.

18 Materials, Nonmetallic

Includes corrosion; physical and mechanical properties of materials (e.g., plastics); and elastomers, hydraulic fluids, etc. For basic research see: 06 Chemistry. For related information see also: 17 Materials, Metallic; 27 Propellants; and 32 Structural Mechanics.

19 Mathematics

Includes calculation methods and theory; and numerical analysis. For applications see specific categories. For related information see also: 08 Computers.

20 Meteorology

Includes climatology; weather forecasting; and visibility studies. For related information see also: 13 Geophysics; and 30 Space Sciences.

21 Navigation

Includes guidance; autopilots; star and planet tracking; inertial platforms; and air traffic control. For related information see also: 07 Communications.

22 Nuclear Engineering

Includes nuclear reactors and nuclear heat sources used for propulsion and auxiliary power. For basic research see: 24 Physics, Atomic, Molecular, and Nuclear. For related information see also: 03 Auxiliary Systems; and 28 Propulsion Systems.

23 Physics, General

Includes acoustics, cryogenics, mechanics, and optics. For astrophysics see: 30 Space Sciences. For geophysics and related information see also: 13 Geophysics, 20 Meteorology, and 29 Space Radiation.

24 Physics, Atomic, Molecular, and Nuclear

Includes atomic, molecular and nuclear physics. For applications see: 22 Nuclear Engineering. For related information see also: 29 Space Radiation.

25 Physics, Plasma

Includes magnetohydrodynamics. For applications see: 28 Propulsion Systems.

26 Physics, Solid-State

Includes semiconductor theory; and superconductivity. For applications see: 16 Masers. For related information see also: 10 Electronics.

27 Propellants

Includes fuels; igniters; and oxidizers. For basic re-

search see: 06 Chemistry; and 33 Thermodynamics and Combustion. For related information see also: 28 Propulsion Systems.

28 Propulsion Systems

Includes air breathing, electric, liquid, solid, and magnetohydrodynamic propulsion. For nuclear propulsion see: 22 Nuclear Engineering. For basic research see: 23 Physics, General; and 33 Thermodynamics and Combustion. For applications see: 31 Space Vehicles. For related information see also: 27 Propellants.

29 Space Radiation

Includes cosmic radiation; solar flares; solar radiation; and Van Allen radiation belts. For related information see also: 13 Geophysics, and 24 Physics, Atomic, Molecular, and Nuclear.

30 Space Sciences

Includes astronomy and astrophysics; cosmology; lunar and planetary flight and exploration; and theoretical analysis of orbits and trajectories. For related information see also: 11 Facilities, Research, and Support; and 31 Space Vehicles.

31 Space Vehicles

Includes launch vehicles; manned space capsules; clustered and multistage rockets; satellites; sounding rockets and probes; and operating problems. For basic research see: 30 Space Sciences. For related information see also: 28 Propulsion Systems; and 32 Structural Mechanics.

32 Structural Mechanics

Includes structural element design and weight analysis; fatigue; thermal stress; impact phenomena; vibration; flutter; inflatable structures; and structural tests. For related information see also: 17 Materials, Metallic; and 18 Materials, Nonmetallic.

33 Thermodynamics and Combustion

Includes ablation, cooling, heating, heat transfer, thermal balance, and other thermal effects; and combustion theory. For related information see also: 12 Fluid Mechanics; and 27 Propellants.

34 General

Includes information of a broad nature related to industrial applications and technology, and to basic research; defense aspects; information retrieval; management; law and related legal matters; and legislative hearings and documents.

TABLE OF CONTENTS

Section 1 • Abstracts

Subject Categories (1974 -)

AERONAUTICS

Includes aeronautics (general); aerodynamics; air transportation and safety; aircraft communications and navigation; aircraft design, testing and performance; aircraft instrumentation; aircraft propulsion and power; aircraft stability and control; and research and support facilities (air).

For related information see also *Astronautics*.

01 AERONAUTICS (GENERAL)

02 AERODYNAMICS

Includes aerodynamics of bodies, combinations, wings, rotors, and control surfaces; and internal flow in ducts and turbomachinery.

For related information see also *34 Fluid Mechanics and Heat Transfer*.

03 AIR TRANSPORTATION AND SAFETY

Includes passenger and cargo air transport operations; and aircraft accidents.

For related information see also *16 Space Transportation* and *85 Urban Technology and Transportation*.

04 AIRCRAFT COMMUNICATIONS AND NAVIGATION

Includes digital and voice communication with aircraft; air navigation systems (satellite and ground based); and air traffic control.

For related information see also *17 Spacecraft Communications, Command and Tracking*, and *32 Communications*.

05 AIRCRAFT DESIGN, TESTING AND PERFORMANCE

Includes aircraft simulation technology.

For related information see also *18 Spacecraft Design, Testing and Performance* and *39 Structural Mechanics*.

06 AIRCRAFT INSTRUMENTATION

Includes cockpit and cabin display devices; and flight instruments.

For related information see also *19 Spacecraft Instrumentation* and *35 Instrumentation and Photography*.

07 AIRCRAFT PROPULSION AND POWER

Includes prime propulsion systems and systems components, e.g., gas turbine engines and compressors; and on-board auxiliary power plants for aircraft.

For related information see also *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.

08 AIRCRAFT STABILITY AND CONTROL

Includes aircraft handling qualities; piloting; flight controls; and autopilots.

09 RESEARCH AND SUPPORT FACILITIES (AIR)

Includes airports, hangars and runways; aircraft repair and overhaul facilities; wind tunnels; shock tube facilities; and engine test blocks.

For related information see also *14 Ground Support Systems and Facilities (Space)*.

ASTRONAUTICS

Includes astronautics (general); astrodynamics; ground support systems and facilities (space); launch vehicles and space vehicles; space transportation; spacecraft communications, command and tracking; spacecraft design, testing and performance; spacecraft instrumentation; and spacecraft propulsion and power.

For related information see also *Aeronautics*.

12 ASTRONAUTICS (GENERAL)

For extraterrestrial exploration see *91 Lunar and Planetary Exploration*.

13 ASTRODYNAMICS

Includes powered and free-flight trajectories; and orbit and launching dynamics.

14 GROUND SUPPORT SYSTEMS AND FACILITIES (SPACE)

Includes launch complexes, research and production facilities; ground support equipment, e.g., mobile transporters; and simulators.

For related information see also *09 Research and Support Facilities (Air)*.

15 LAUNCH VEHICLES AND SPACE VEHICLES

Includes boosters; manned orbital laboratories; reusable vehicles; and space stations.

16 SPACE TRANSPORTATION

Includes passenger and cargo space transportation, e.g., shuttle operations; and rescue techniques.

For related information see also *03 Air Transportation and Safety* and *85 Urban Technology and Transportation*.

17 SPACECRAFT COMMUNICATIONS, COMMAND AND TRACKING

Includes telemetry; space communications networks; astronavigation; and radio blackout.

For related information see also *04 Aircraft Communications and Navigation* and *32 Communications*.

18 SPACECRAFT DESIGN, TESTING AND PERFORMANCE

Includes spacecraft thermal and environmental control; and attitude control.

For life support systems see *54 Man/System Technology and Life Support*. For related information see also *05 Aircraft Design, Testing and Performance* and *39 Structural Mechanics*.

19 SPACECRAFT INSTRUMENTATION

For related information see also *06 Aircraft Instrumentation* and *35 Instrumentation and Photography*.

20 SPACECRAFT PROPULSION AND POWER

Includes main propulsion systems and components, e.g., rocket engines; and spacecraft auxiliary power sources.

For related information see also *07 Aircraft Propulsion and Power*, *28 Propellants and Fuels*, and *44 Energy Production and Conversion*.

CHEMISTRY AND MATERIALS

Includes chemistry and materials (general); composite materials; inorganic and physical chemistry; metallic materials; nonmetallic materials; and propellants and fuels.

23 CHEMISTRY AND MATERIALS (GENERAL)

Includes biochemistry and organic chemistry.

24 COMPOSITE MATERIALS

Includes laminates.

25 INORGANIC AND PHYSICAL CHEMISTRY

Includes chemical analysis, e.g., chromatography; combustion theory; electrochemistry; and photochemistry.

For related information see also *77 Thermodynamics and Statistical Physics*.

26 METALLIC MATERIALS

Includes physical, chemical, and mechanical properties of metals, e.g., corrosion; and metallurgy.

27 NONMETALLIC MATERIALS

Includes physical, chemical, and mechanical properties of plastics, elastomers, lubricants, polymers, textiles, adhesives, and ceramic materials.

28 PROPELLANTS AND FUELS

Includes rocket propellants, igniters, and oxidizers; storage and handling; and aircraft fuels.

For related information see also *07 Aircraft Propulsion and Power*, *20 Spacecraft Propulsion and Power*, and *44 Energy Production and Conversion*.

ENGINEERING

Includes engineering (general); communications; electronics and electrical engineering; fluid mechanics and heat transfer; instrumentation and photography; lasers and masers; mechanical engineering; quality assurance and reliability; and structural mechanics.

For related information see also *Physics*.

31 ENGINEERING (GENERAL)

Includes vacuum technology; control engineering; display engineering; and cryogenics.

32 COMMUNICATIONS

Includes land and global communications; communications theory; and optical communications.

For related information see also *04 Aircraft Communications and Navigation* and *17 Spacecraft Communications, Command and Tracking*.

33 ELECTRONICS AND ELECTRICAL ENGINEERING

Includes test equipment and maintainability; components, e.g., tunnel diodes and transistors; microminiaturization; and integrated circuitry.

For related information see also *60 Computer Operations and Hardware* and *76 Solid-State Physics*.

34 FLUID MECHANICS AND HEAT TRANSFER

Includes boundary layers; hydrodynamics; fluidics; mass transfer; and ablation cooling.

For related information see also *02 Aerodynamics* and *77 Thermodynamics and Statistical Physics*.

35 INSTRUMENTATION AND PHOTOGRAPHY

Includes remote sensors; measuring instruments and gages; detectors; cameras and photographic supplies; and holography.

For aerial photography see *43 Earth Resources*. For related information see also *06 Aircraft Instrumentation* and *19 Spacecraft Instrumentation*.

36 LASERS AND MASERS

Includes parametric amplifiers.

37 MECHANICAL ENGINEERING

Includes auxiliary systems (non-power); machine elements and processes; and mechanical equipment.

38 QUALITY ASSURANCE AND RELIABILITY

Includes product sampling procedures and techniques; and quality control.

39 STRUCTURAL MECHANICS

Includes structural element design and weight analysis; fatigue; and thermal stress.

For applications see *05 Aircraft Design, Testing and Performance* and *18 Spacecraft Design, Testing and Performance*.

GEOSCIENCES

Includes geosciences (general); earth resources; energy production and conversion; environment pollution; geophysics; meteorology and climatology; and oceanography.

For related information see also *Space Sciences*.

42 GEOSCIENCES (GENERAL)

43 EARTH RESOURCES

Includes remote sensing of earth resources by aircraft and spacecraft; photogrammetry; and aerial photography.

For instrumentation see *35 Instrumentation and Photography*.

44 ENERGY PRODUCTION AND CONVERSION

Includes specific energy conversion systems, e.g., fuel cells and batteries; global sources of energy; fossil fuels; geophysical conversion; hydroelectric power; and wind power.

For related information see also *07 Aircraft Propulsion and Power*, *20 Spacecraft Propulsion and Power*, *28 Propellants and Fuels*, and *85 Urban Technology and Transportation*.

45 ENVIRONMENT POLLUTION

Includes air, noise, thermal and water pollution; environment monitoring; and contamination control.

46 GEOPHYSICS

Includes aeronomy; upper and lower atmosphere studies; ionospheric and magnetospheric physics; and geomagnetism.

For space radiation see *93 Space Radiation*.

47 METEOROLOGY AND CLIMATOLOGY

Includes weather forecasting and modification.

48 OCEANOGRAPHY

Includes biological, dynamic and physical oceanography; and marine resources.

LIFE SCIENCES

Includes life sciences (general); aerospace medicine; behavioral sciences; man/system technology and life support; and planetary biology.

51 LIFE SCIENCES (GENERAL)

Includes genetics.

52 AEROSPACE MEDICINE

Includes physiological factors; biological effects of radiation; and weightlessness.

53 BEHAVIORAL SCIENCES

Includes psychological factors; individual and group behavior; crew training and evaluation; and psychiatric research.

54 MAN/SYSTEM TECHNOLOGY AND LIFE SUPPORT

Includes human engineering; biotechnology; and space suits and protective clothing.

55 PLANETARY BIOLOGY

Includes exobiology; and extraterrestrial life.

MATHEMATICAL AND COMPUTER SCIENCES

Includes mathematical and computer sciences (general); computer operations and hardware; computer programming and software; computer systems; cybernetics; numerical analysis; statistics and probability; systems analysis; and theoretical mathematics.

59 MATHEMATICAL AND COMPUTER SCIENCES (GENERAL)

60 COMPUTER OPERATIONS AND HARDWARE

Includes computer graphics and data processing. For components see *33 Electronics and Electrical Engineering*.

61 COMPUTER PROGRAMMING AND SOFTWARE

Includes computer programs, routines, and algorithms.

62 COMPUTER SYSTEMS

Includes computer networks.

63 CYBERNETICS

Includes feedback and control theory.

For related information see also *54 Man/System Technology and Life Support*.

64 NUMERICAL ANALYSIS

Includes iteration, difference equations, and numerical approximation.

65 STATISTICS AND PROBABILITY

Includes data sampling and smoothing; Monte Carlo method; and stochastic processes.

66 SYSTEMS ANALYSIS

Includes mathematical modeling; network analysis; and operations research.

67 THEORETICAL MATHEMATICS

Includes topology and number theory.

PHYSICS

Includes physics (general); acoustics; atomic and molecular physics; nuclear and high-energy physics; optics; plasma physics; solid-state physics; and thermodynamics and statistical physics.

For related information see also *Engineering*.

70 PHYSICS (GENERAL)

For geophysics see *46 Geophysics*. For astrophysics see *90 Astrophysics*. For solar physics see *92 Solar Physics*.

71 ACOUSTICS

Includes sound generation, transmission, and attenuation.

For noise pollution see *45 Environment Pollution*.

72 ATOMIC AND MOLECULAR PHYSICS

Includes atomic structure and molecular spectra.

73 NUCLEAR AND HIGH-ENERGY PHYSICS

Includes elementary and nuclear particles; and reactor theory.

For space radiation see *93 Space Radiation*.

74 OPTICS

Includes light phenomena.

75 PLASMA PHYSICS

Includes magnetohydrodynamics and plasma fusion.

For ionospheric plasmas see *46 Geophysics*. For space plasmas see *90 Astrophysics*.

76 SOLID-STATE PHYSICS

Includes superconductivity.

For related information see also *33 Electronics and Electrical Engineering* and *36 Lasers and Masers*.

77 THERMODYNAMICS AND STATISTICAL PHYSICS

Includes quantum mechanics; and Bose and Fermi statistics.

For related information see also *25 Inorganic and Physical Chemistry* and *34 Fluid Mechanics and Heat Transfer*.

SOCIAL SCIENCES

Includes social sciences (general); administration and management; documentation and information science; economics and cost analysis; law and political science; and urban technology and transportation.

80 SOCIAL SCIENCES (GENERAL)

Includes educational matters.

81 ADMINISTRATION AND MANAGEMENT

Includes management planning and research.

82 DOCUMENTATION AND INFORMATION SCIENCE

Includes information storage and retrieval technology; micrography; and library science.

For computer documentation see *61 Computer Programming and Software*.

83 ECONOMICS AND COST ANALYSIS

Includes cost effectiveness studies.

84 LAW AND POLITICAL SCIENCE

Includes space law; international law; international cooperation; and patent policy.

85 URBAN TECHNOLOGY AND TRANSPORTATION

Includes applications of space technology to urban problems; technology transfer; technology assessment; and surface and mass transportation.

For related information see *03 Air Transportation and Safety*, *16 Space Transportation*, and *44 Energy Production and Conversion*.

SPACE SCIENCES

Includes space sciences (general); astronomy; astrophysics; lunar and planetary exploration; solar physics; and space radiation.

For related information see also *Geosciences*.

88 SPACE SCIENCES (GENERAL)

89 ASTRONOMY

Includes radio and gamma-ray astronomy; celestial mechanics; and astrometry.

90 ASTROPHYSICS

Includes cosmology; and interstellar and interplanetary gases and dust.

91 LUNAR AND PLANETARY EXPLORATION

Includes planetology; and manned and unmanned flights.

For spacecraft design see *18 Spacecraft Design, Testing and Performance*. For space stations see *15 Launch Vehicles and Space Vehicles*.

92 SOLAR PHYSICS

Includes solar activity, solar flares, solar radiation and sunspots.

93 SPACE RADIATION

Includes cosmic radiation; and inner and outer earth's radiation belts.

For biological effects of radiation see *52 Aerospace Medicine*. For theory see *73 Nuclear and High-Energy Physics*.

GENERAL

99 GENERAL

Section 2 • Indexes

SUBJECT INDEX	I-1
INVENTOR INDEX	I-251
SOURCE INDEX	I-353
NUMBER INDEX	I-415
ACCESSION NUMBER INDEX	I-515

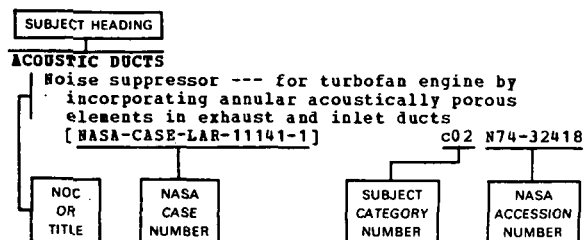
Subject Index

NASA PATENT ABSTRACTS BIBLIOGRAPHY

JULY 1979

Section 2

Typical Subject Index Listing



The subject heading is the key to the subject content of the document. A brief description of the document, e.g., title, title plus a title extension, or Notation of Content (NOC), is included for each subject entry to indicate the subject heading context; these descriptions are arranged under each subject heading in ascending accession number order. The NASA Case Number serves as the prime access number to the patent documents. The Subject Category Number indicates the category in Section 1 (Abstracts) in which the patent citation and abstract are located. The NASA accession number denotes the number by which the citation is identified within the subject category.

A

ABLATION

Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding
[NASA-CASE-XHS-02677] c31 N70-42075

Hypersonic test facility for studying ablation in models under high pressure and high temperature
[NASA-CASE-XLA-00378] c11 N71-15925

Design of hypersonic test facility for ablation tests and performance tests of vehicles under conditions of high temperature and pressure
[NASA-CASE-XLA-05378] c11 N71-21475

Ablation sensor for measuring char layer recession rate using electric wires
[NASA-CASE-XLA-01794] c33 N71-21586

Ablation sensor for measuring surface ablation rate of material on vehicles entering earths atmosphere on entry into planetary atmospheres
[NASA-CASE-XLA-01791] c14 N71-22991

Ablative system with liquid carrying ablative material bodies and forming self-replacing ablative surface
[NASA-CASE-LEW-10359] c33 N72-25911

Cork-resin ablative insulation for complex surfaces and method for applying the same
[NASA-CASE-MPS-23626-1] c24 N78-32190

ABLATIVE MATERIALS

Filling honeycomb matrix with deaerated paste filler
[NASA-CASE-XHS-01108] c15 N69-24322

Sensor device with switches for measuring surface recession of charring and noncharring ablators
[NASA-CASE-XLA-01781] c14 N69-39975

Vacuum method for molding thermosetting compounds used as ablative materials
[NASA-CASE-XLA-01091] c15 N71-10672

Ablative resins used for retarding regression in ablative material
[NASA-CASE-XLE-05913] c33 N71-14032

Design, development, and characteristics of ablation structures
[NASA-CASE-XHS-01816] c33 N71-15623

Method and apparatus for fabrication of heat insulating and ablative reentry structure
[NASA-CASE-XHS-02009] c33 N71-20834

Production and application of sprayable fiber reinforced ablation material
[NASA-CASE-XLA-04251] c18 N71-26100

Ablative heat shield for protection from aerodynamic heating of reentry spacecraft

[NASA-CASE-MSC-12143-1] c33 N72-17947
Ablative system with liquid carrying ablative material bodies and forming self-replacing ablative surface

[NASA-CASE-LEW-10359] c33 N72-25911
Carrier liquid system containing bodies of ablative material

[NASA-CASE-LEW-10359-2] c33 N73-25952
Ablation article and surface for analyzing flow transition on ablative surface

[NASA-CASE-LAR-10439-1] c33 N73-27796
Dual measurement ablation sensor

[NASA-CASE-LAR-10105-1] c34 N74-15652
Sprayable low density ablator and application process

[NASA-CASE-MPS-23506-1] c24 N78-24290
Intumescent-ablator coatings using endothermic fillers

[NASA-CASE-ARC-11043-1] c24 N78-27180
ABORT APPARATUS

Coupling device for linear shaped charge for space vehicle abort system
[NASA-CASE-XLA-00189] c33 N70-36846

ABRASION RESISTANCE

Zinc dust formulation for abrasion resistant steel coatings
[NASA-CASE-GSC-10361-1] c18 N72-23581

Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466

Abrasion resistant coatings for plastic surfaces
[NASA-CASE-ARC-10915-3] c24 N77-24200

Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses

[NASA-CASE-ARC-11039-1] c74 N78-32854

ABSORBENTS

Absorbent apparatus for separating gas from liquid-gas stream used in environmental control under zero gravity conditions

[NASA-CASE-XHS-01492] c05 N70-41297
Fluid flow control valve for regulating fluids in molecular quantities

[NASA-CASE-XLE-00703] c15 N71-15967
Noncontaminating swab with absorbent end covered with netted envelope to prevent egress of absorbent material

[NASA-CASE-MPS-18100] c15 N72-11390
Protein sterilization of firefly luciferase without denaturation

[NASA-CASE-GSC-10225-1] c06 N73-27086
Oil and fat absorbing polymers

[NASA-CASE-NPO-11609-2] c27 N77-31308
Sweat collection capsule

[NASA-CASE-ARC-11031-1] c54 N78-22720

ABSORBERS (MATERIALS)

Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures

[NASA-CASE-XHS-05303] c07 N69-27462
Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator

[NASA-CASE-LAR-10180-1] c06 N71-13461
Development of filter system for control of outgas contamination in vacuum conditions using absorbent beds of molecular sieve zeolite, silica gel, and charcoal

[NASA-CASE-MPS-14711] c15 N71-26185
Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature

[NASA-CASE-XMF-04208] c33 N71-29051

ABSORPTION

SUBJECT INDEX

Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NPO-13620-1] c27 N77-30236

ABSORPTION
Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867

ABSORPTION CROSS SECTIONS
Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-MSC-12280] c27 N71-16348

ABSORPTIVITY
Detector absorptivity measuring method and apparatus
[NASA-CASE-LAR-10907-1] c35 N76-29551

AC GENERATORS
Alternating current signal generator providing plurality of amplitude modulated output signals
[NASA-CASE-XNP-05612] c09 N69-21468
Improved alternator with windings of superconducting materials acting as permanent magnet
[NASA-CASE-XLE-02824] c03 N69-39890
Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature
[NASA-CASE-XLE-02823] c09 N71-23443
Solar cell system having alternating current output
[NASA-CASE-LEW-12806-1] c44 N78-25553

ACCELERATION
Single grid accelerator system for electron bombardment type ion thruster
[NASA-CASE-XLE-10453-2] c28 N73-27699

ACCELERATION (PHYSICS)
Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-XAC-00399] c11 N70-34815
Gravity device for accurate and rapid indication of relative gravity conditions aboard accelerating carrier
[NASA-CASE-XNP-00424] c11 N70-38196
Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XNP-02595] c31 N71-21881
Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169
G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381

ACCELERATION PROTECTION
Astronaut restraint suit for high acceleration protection
[NASA-CASE-IAC-00405] c05 N70-41819
Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
[NASA-CASE-XLA-02898] c05 N71-20268

ACCELERATION STRESSES (PHYSIOLOGY)
Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XNP-02595] c31 N71-21881

ACCELERATION TOLERANCE
Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components
[NASA-CASE-NPO-10556] c14 N71-27185

ACCELERATORS
Annular arc accelerator shock tube
[NASA-CASE-NPO-13528-1] c09 N77-10071
Spring operated accelerator and constant force spring mechanism therefor
[NASA-CASE-ARC-10898-1] c35 N77-18417

ACCELEROMETERS
Superconductive accelerometer employing variable force principle to determine acceleration of bodies
[NASA-CASE-XNP-01099] c14 N71-15969
Describing device for velocity control of electromechanical drive mechanism of scanning mirror of interferometer
[NASA-CASE-IGS-03532] c14 N71-17627
Omnidirectional liquid filled accelerometer design with liquid and housing temperature

compensation
[NASA-CASE-HQN-10780] c14 N71-30265
Development of combined velocimeter and accelerometer based on color changes in liquid crystalline material subjected to shear stresses
[NASA-CASE-ERC-10292] c14 N72-25410
Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position
[NASA-CASE-NPO-13044-1] c35 N74-15094
Accelerometer telemetry system
[NASA-CASE-ARC-10849-1] c17 N76-29347
Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure noise levels during wind tunnel tests
[NASA-CASE-LAR-12261-1] c02 N79-16805

ACCEPTABILITY
Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395

ACCEPTOR MATERIALS
III-V photocathode with nitrogen doping for increased quantum efficiency
[NASA-CASE-NPO-12134-1] c33 N76-31409

ACCUMULATORS
Direct radiation cooling of linear beam collector tubes
[NASA-CASE-XNP-09227] c15 N69-24319
Regenerative cooling system for small rocket engine having restart capability and using noncryogenic hypergolic propellants
[NASA-CASE-XLE-00685] c28 N70-41992
Small plasma probe using tungsten wire collector in tubular shield
[NASA-CASE-XLE-02578] c25 N71-20747
Electrostatic charged particle collector containing stacked electrodes for microwave tube
[NASA-CASE-LEW-11192-1] c09 N73-13208

ACCUMULATOR
[NASA-CASE-MFS-19287-1] c34 N77-30399
Method for fabricating solar cells having integrated collector grits
[NASA-CASE-LEW-12819-2] c44 N79-18444

ACETALS
Synthesis of schiff bases for heat shields by acetal amine reactions
[NASA-CASE-XNP-08652] c06 N71-11243

ACETATES
Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil
[NASA-CASE-NPO-8835] c27 N78-33228

ACETIC ACID
Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-2] c52 N79-14755

ACETYLENE
Preparation of dicyanoacetylene and vinylidene copolymers using organic compounds
[NASA-CASE-XNP-03250] c06 N71-23500

ACOUSTIC ATTENUATION
Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity
[NASA-CASE-LAR-11435-1] c35 N76-15432

ACOUSTIC DUCTS
Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418

ACOUSTIC IMPEDANCE
Method and transducer device for detecting presence of hydrogen gas
[NASA-CASE-XNP-03873] c06 N69-39733

ACOUSTIC MEASUREMENTS
Instrumentation for measuring aircraft noise and sonic boom
[NASA-CASE-LAR-11476-1] c07 N76-27232
Differential sound level meter
[NASA-CASE-LAR-12106-1] c71 N78-14867
Pseudo continuous wave instrument --- ultrasonics
[NASA-CASE-LAR-12260-1] c35 N79-10390
Stark cell spectrophone with polarization modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392

ACOUSTIC PROPAGATION
Material suspension within an acoustically excited resonant chamber --- at near weightless conditions

SUBJECT INDEX

ADENOSINE TRIPHOSPHATE

- [NASA-CASE-NPO-13263-1] c12 N75-24774
Resolution enhanced sound detecting apparatus
--- wind tunnel apparatus for airframe noise
localization
[NASA-CASE-NPO-14134-1] c71 N78-19898
- ACOUSTIC PROPERTIES**
Development of wind tunnel microphone structure
to minimize effects of vibrations and
eliminate unwanted signals in microphone output
[NASA-CASE-XNP-00250] c11 N71-28779
Acoustical transducer calibrating system
including differential pressure activating
device
[NASA-CASE-FRC-10060-1] c14 N73-27379
Pseudo continuous wave instrument --- ultrasonics
[NASA-CASE-LAR-12260-1] c35 N79-10390
- ACOUSTICAL HOLOGRAPHY**
Hybrid holographic non-destructive test system
[NASA-CASE-NFS-23114-1] c38 N78-32447
- ACOUSTO-OPTICS**
Acoustic vibration test apparatus for wiring
harnesses
[NASA-CASE-MSC-15158-1] c14 N72-17325
Method and apparatus for background signal
reduction in opto-acoustic absorption
measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411
Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867
Stark cell optoacoustic detection of constituent
gases in sample
[NASA-CASE-NPO-14143-1] c25 N79-10169
- ACRYLATES**
Ablative resins used for retarding regression in
ablative material
[NASA-CASE-XLE-05913] c33 N71-14032
- ACRYLIC RESINS**
Abrasion resistant coatings for plastic surfaces
[NASA-CASE-ARC-10915-3] c24 N77-24200
- ACTIVATION ENERGY**
Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579
Heat activated cell with aluminum anode
[NASA-CASE-LEW-11359-2] c03 N72-20034
- ACTUATOR DISKS**
Cryogenic gyroscope housing --- with annular
disks for gas spin-up
[NASA-CASE-NFS-21136-1] c35 N74-18323
- ACTUATORS**
Electromechanical actuator and its use in rocket
thrust control valve
[NASA-CASE-XNP-05975] c15 N69-23185
Power controlled bimetallic electromechanical
actuator for accurate, timely, and reliable
response to remote control signal
[NASA-CASE-XNP-09776] c09 N69-39929
Patent data on gas actuated bolt disconnect
assembly
[NASA-CASE-XLA-00326] c03 N70-34667
Hermetically sealed explosive release mechanism
for actuator device
[NASA-CASE-IGS-00824] c15 N71-16078
Burst diaphragm flow initiator for installation
in short duration wind tunnels
[NASA-CASE-NFS-12915] c11 N71-17600
Hand controller operable about three
respectively perpendicular axes and capable of
actuating signal generators for attitude
control devices
[NASA-CASE-XNS-07487] c15 N71-23255
Mechanical actuator wherein linear motion
changes to rotational motion
[NASA-CASE-IGS-04548] c15 N71-24045
Hydraulic actuator design for space deployment
of heat radiators
[NASA-CASE-MSC-11817-1] c15 N71-26611
Electromechanical control actuator system using
double differential screws
[NASA-CASE-ERC-10022] c15 N71-26635
System to control speed of hydraulically movable
members by limiting energy applied to
actuators with hydraulic servo loop
[NASA-CASE-ARC-10131-1] c15 N71-27754
Zero power telemetry actuated switch for
biomedical equipment
[NASA-CASE-ARC-10105] c09 N72-17153
Mechanically operated hand which can depress
trigger using touch control device
[NASA-CASE-NFS-20413] c15 N72-21463
- Hermetically sealed elbow actuator for use in
severe environments
[NASA-CASE-NFS-14710] c09 N72-22195
Characteristics of lightweight actuator for
imparting linear motion using elongated output
shaft
[NASA-CASE-NPO-11222] c15 N72-25456
Rotary actuator for use in environments with no
rolling and sliding friction
[NASA-CASE-NPO-10244] c15 N72-26371
Gas-operated actuator with cyclic motion of
expansion chamber
[NASA-CASE-NPO-11340] c15 N72-33477
Redundant hydraulic control system for actuators
with three main valve combination
[NASA-CASE-NFS-20944] c15 N73-13466
Actuator operated by electrolytic drive gas
generator and evacuator
[NASA-CASE-NPO-11369] c15 N73-13467
Manual actuator --- for spacecraft exercising
machines
[NASA-CASE-NFS-21481-1] c37 N74-18127
Optically actuated two position mechanical mover
[NASA-CASE-NPO-13105-1] c37 N74-21060
Miniature hydraulic actuator --- for control
surfaces on airfoils
[NASA-CASE-LAR-11522-1] c34 N74-34881
Dual output variable pitch turbofan actuation
system
[NASA-CASE-LEW-12419-1] c07 N77-14025
Actuator device for artificial leg
[NASA-CASE-NFS-23225-1] c52 N77-14735
Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458
A pressure limiting propellant actuating system
[NASA-CASE-MSC-18179-1] c20 N78-31162
Actuator mechanism
[NASA-CASE-GSC-11883-2] c37 N78-31426
A phase-angle controller for stirling engines
[NASA-CASE-NPO-14388-1] c37 N79-17217
- ADAPTERS**
Camera adapter design for image magnification
including lens and illuminator
[NASA-CASE-XNP-03844-1] c14 N71-26474
- ADAPTIVE CONTROL**
Self testing and repairing computer comprising
control and diagnostic unit and rollback
points for error correction
[NASA-CASE-NPO-10567] c08 N71-24633
Synchronous dc direct-drive system comprising
multiple-loop hybrid control system
controlling load directly connected to actuator
[NASA-CASE-GSC-10065-1] c10 N71-27136
Versatile ergometer with work load control
[NASA-CASE-NFS-21109-1] c05 N73-27941
Adaptive voting computer system
[NASA-CASE-MSC-13932-1] c62 N74-14920
Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154
- ADAPTIVE FILTERS**
Adaptive notch filter, using modulation
techniques for reversed phase noise signal
[NASA-CASE-XNP-01892] c10 N71-22986
- ADDING CIRCUITS**
Circuit diagram and operation of full binary adder
[NASA-CASE-IGS-00689] c08 N70-34787
Error correction circuitry for binary signal
channels
[NASA-CASE-XNP-03263] c09 N71-18843
- ADDITIVES**
Ammonium perchlorate composite propellant with
organic Cu/II/ chelate catalytic additive
[NASA-CASE-LAR-10173-1] c27 N71-14090
- ADENOSINE TRIPHOSPHATE**
Use of enzyme hexokinase and glucose to reduce
inherent light levels of ATP in luciferase
compositions
[NASA-CASE-XGS-05533] c04 N69-27487
Detection instrument for light emitted from ATP
biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
Describing method for lyophilization of
luciferase containing mixtures for use in life
detection reactions
[NASA-CASE-XGS-05532] c06 N71-17705
Automatic device for assaying urine on bacterial
adenosine triphosphate content
[NASA-CASE-GSC-11169-2] c05 N73-32011

ADHESION

SUBJECT INDEX

Application of luciferase assay for ATP to antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794

ADHESION
Tool for mounting and removing studs with adhesive coated head portion
[NASA-CASE-MPS-20299] c15 N72-11392

ADHESION TESTS
Apparatus for determining quality of bond between high density material and low density material
[NASA-CASE-MPS-13686] c15 N71-18132

ADHESIVE BONDING
Fabrication of solar cell banks for attaching solar cells to base members or substrates
[NASA-CASE-XMP-00826] c03 N71-20895
Method for honeycomb panel bonding by thermosetting film adhesive with electrical heat means
[NASA-CASE-XMP-01402] c18 N71-21651
Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dischromate for adhesive bonding
[NASA-CASE-XMP-02303] c17 N71-23828
Adhesive spray process for attaching biomedical skin electrodes
[NASA-CASE-XPR-07658-1] c05 N71-26293
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992
Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671
Weld-bonded titanium structures
[NASA-CASE-LAR-11549-1] c37 N77-11397
Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215
Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355
Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles
[NASA-CASE-MSC-12619-2] c27 N79-12221
Surface finishing --- adhesive bonding of plastic film to metal airfoil surfaces
[NASA-CASE-MSC-12631-3] c26 N79-21183

ADHESIVES
Polyimide adhesives
[NASA-CASE-LAR-11397-1] c27 N75-29263
Polyimide adhesives
[NASA-CASE-LAR-12181-1] c27 N78-17205

ADJUSTING
Centering device with ultrafine adjustment for use with roundness measuring apparatus
[NASA-CASE-XMP-00480] c14 N70-39898
Slotted fine-adjustment support for optical devices
[NASA-CASE-MPS-20249] c15 N72-11386
Adjustable support device with jacket screw for altering distance between base and supported member
[NASA-CASE-NPO-10721] c15 N72-27484
Clock setter
[NASA-CASE-LAR-11458-1] c35 N76-16392

AERODYNAMIC BRAKES
Bluff-shaped annular configuration for supersonic decelerator for reentry vehicles
[NASA-CASE-XLE-00222] c02 N70-37939
Lightweight, variable solidity knitted parachute fabric --- for aerodynamic decelerators
[NASA-CASE-LAR-10776-1] c02 N74-10034

AERODYNAMIC CHARACTERISTICS
Variable aspect ratio and variable sweep delta wing planforms for supersonic aircraft
[NASA-CASE-XLA-00221] c02 N70-33266
Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-XAC-02058] c02 N71-16087
Spacecraft configurations and aerodynamic characteristics of space shuttle systems with two reusable stages
[NASA-CASE-MSC-12433] c31 N73-14854
Airfoil shape for flight at subsonic speeds --- design analysis and aerodynamic characteristics of the GAW-1 airfoil
[NASA-CASE-LAR-10585-1] c02 N76-22154

AERODYNAMIC CONFIGURATIONS

Supersonic aircraft configuration providing for variable aspect ratio and variable sweep wings
[NASA-CASE-XLA-00166] c02 N70-34178
Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858
Manned space capsule configuration for orbital flight and atmospheric reentry
[NASA-CASE-XLA-00149] c31 N70-37938
Aerodynamic configuration of reentry vehicle heat shield to provide longitudinal and directional stability at hypersonic velocities
[NASA-CASE-XMS-04142] c31 N70-47631
Development and characteristics of translating horizontal tail assembly for supersonic aircraft
[NASA-CASE-XLA-08801-1] c02 N71-11043
Variable geometry manned orbital vehicle having high aerodynamic efficiency over wide speed range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674
Afterburner-equipped jet engine nacelle with slotted configuration afterbody
[NASA-CASE-XLA-10450] c28 N71-21493
Variable geometry rotor system for direct control over wake vortex
[NASA-CASE-LAR-10557] c02 N72-11018
Development of auxiliary lifting system to provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257
Multistage aerospace craft --- perspective drawings of conceptual design
[NASA-CASE-XMP-02263] c05 N74-10907
Supersonic fan blading --- noise reduction in turbofan engines
[NASA-CASE-LEW-11402-1] c07 N74-28226
Aircraft design concept
[NASA-CASE-LAR-11852-1] c05 N77-15027
An annular wing
[NASA-CASE-FRC-11007-1] c02 N78-19055
Free wing assembly for an aircraft
[NASA-CASE-FRC-10092-1] c05 N79-12061

AERODYNAMIC HEATING
Development of thermal insulation system, for wing and control surfaces of hypersonic aircraft and reentry vehicles
[NASA-CASE-XLA-00892] c33 N71-17897
Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin
[NASA-CASE-XPR-03802] c33 N71-23085
Ablative heat shield for protection from aerodynamic heating of reentry spacecraft
[NASA-CASE-MSC-12143-1] c33 N72-17947

AERODYNAMIC LOADS
Directed fluid stream for propeller blade loading control
[NASA-CASE-XAC-00139] c02 N70-34856

AERODYNAMIC NOISE
Apparatus for reducing aerodynamic noise in a wind tunnel
[NASA-CASE-MPS-23099-1] c09 N76-23273

AERODYNAMIC STABILITY
Aerodynamically stable meteorological balloon using surface roughness effect
[NASA-CASE-XMP-04163] c02 N71-23007
Pressure sensor network for measuring liquid dynamic response in flight including fuel tank acceleration, liquid slosh amplitude, and fuel depth monitoring
[NASA-CASE-XLA-05541] c12 N71-26387
Spacecraft design with single point aerodynamic and hydrodynamic stability for emergency transport of men from space station to splashdown
[NASA-CASE-MSC-13281] c31 N72-18859
High lift aircraft --- with improved stability, control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029

AERONAUTICAL ENGINEERING
Differential pressure cell insensitive to changes in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816

SUBJECT INDEX

AIR FLOW

AEROSOLS

- Liquid aerosol dispenser with explosively driven piston to compress light gas to extremely high pressure
[NASA-CASE-MFS-20829] c12 N72-21310
- Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509
- Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210

AEROSPACE ENGINEERING

- Modifying existing solar cells for temperature control
[NASA-CASE-NPO-10109] c03 N71-11049
- Metallic film diffusion for boundary lubrication in aerospace engineering
[NASA-CASE-XLE-10337] c15 N71-24046
- Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214

AEROSPACE ENVIRONMENTS

- High voltage insulators for direct current in acceleration system of electrostatic thruster
[NASA-CASE-XLE-01902] c28 N71-10574
- Metallic film diffusion into metal or ceramic surfaces for boundary lubrication in aerospace environments
[NASA-CASE-XLE-01765] c18 N71-10772
- Preparation of inorganic solid film lubricants with long wear life and stability in aerospace environments
[NASA-CASE-XMF-03988] c15 N71-21403
- Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990
- Metal alloy bearing materials for space applications
[NASA-CASE-XLE-05033] c15 N71-23810
- Method and apparatus for adjusting thermal conductance in electronic components for space use
[NASA-CASE-XNP-05524] c33 N71-24876
- Space environment simulator for testing spacecraft components under aerospace conditions
[NASA-CASE-NPO-10141] c11 N71-24964
- High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions
[NASA-CASE-LEW-10155-1] c09 N71-29035
- Automatic biowaste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804
- General purpose rocket furnace
[NASA-CASE-MFS-23460-1] c09 N77-12070
- Wobble gear drive mechanism --- for aerospace environments
[NASA-CASE-WOO-00625] c37 N78-17385
- Plasma cleaning device --- designed for high vacuum environments
[NASA-CASE-MFS-22906-1] c75 N78-27913
- Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments
[NASA-CASE-MSC-14331-3] c27 N78-32262

AEROSPACE MEDICINE

- Piston device for producing known constant positive pressure within lungs by using thoracic muscles
[NASA-CASE-XMS-01615] c05 N70-41329
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit
[NASA-CASE-ABC-11059-1] c54 N78-32721

AEROSPACE VEHICLES

- Aerospace configuration with low and high aspect ratio variability for high and low speed flight
[NASA-CASE-XLA-00142] c02 N70-33286
- Landing pad assembly for aerospace vehicles
[NASA-CASE-XMF-02853] c31 N70-36654
- Aerospace vehicle with variable planform for hypersonic and subsonic flight
[NASA-CASE-XLA-00805] c31 N70-38010
- Development of resilient fastener for attaching skin of aerospace vehicles to permit movement of skin relative to framework
[NASA-CASE-XLA-01027] c31 N71-24035
- Chemical spot tests for identification of titanium and titanium alloys used in aerospace vehicles
[NASA-CASE-LAR-10539-1] c17 N73-12547

AEROSPACEPLANES

- Multistage aerospace craft --- perspective drawings of conceptual design
[NASA-CASE-INP-02263] c05 N74-10907

AFTERBODIES

- Afterburner-equipped jet engine nacelle with slotted configuration afterbody
[NASA-CASE-XLA-10450] c28 N71-21493

AFTERBURNING

- Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374

AGING (MATERIALS)

- Method of heat treating age-hardenable alloys
[NASA-CASE-INP-01311] c26 N75-29236

AGRICULTURE

- Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

AILERONS

- Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-XAC-10019] c15 N71-23809

AIR

- Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080
- Superconducting magnetic field trapping device for producing magnetic field in air
[NASA-CASE-XNP-01185] c26 N73-28710

AIR BREATHING ENGINES

- Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120

AIR CONDITIONING EQUIPMENT

- Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XMF-03212] c15 N71-22721
- Air conditioning system and component therefore distributing air flow from opposite directions
[NASA-CASE-GSC-11445-1] c31 N74-27902
- Apparatus for supplying conditioned air at a substantially constant temperature and humidity
[NASA-CASE-GSC-12191-1] c54 N79-19688

AIR COOLING

- Modification and improvement of turbine blades for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33264

AIR DEFENSE

- Antiaircraft system and method employing small projectiles
[NASA-CASE-FRC-11006-1] c99 N79-10995

AIR FILTERS

- Development of filter apparatus for gas separation and characteristics of filter cell support frame for improved operation
[NASA-CASE-MSC-12297] c14 N72-23457

AIR FLOW

- Wind tunnel air flow modulating device and apparatus for selectively generating wave motion in wind tunnel airstream
[NASA-CASE-XLA-00112] c11 N70-33287
- Photographing surface flow patterns on wind tunnel test models
[NASA-CASE-XLA-01353] c14 N70-41366
- Method for maintaining good performance in gas turbine during air flow distortion
[NASA-CASE-LEW-10286-1] c28 N71-28915
- Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds
[NASA-CASE-LAR-10612-1] c12 N73-28144
- Air conditioning system and component therefore distributing air flow from opposite directions
[NASA-CASE-GSC-11445-1] c31 N74-27902
- Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-LEW-11593-1] c20 N76-14190
- Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
- Smoke generator
[NASA-CASE-ABC-10905-1] c37 N77-13418
- Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384
- Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089

AIR INTAKES

AIR INTAKES

Aeroflexible wing structure with air scoop for inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil
[NASA-CASE-ARC-10754-1] c07 N75-24736

AIR LOCKS

Spacecraft air lock system to provide ingress and egress of astronaut without subjecting vehicular environment to vacuum of space
[NASA-CASE-XLA-02050] c31 N71-22968
System for removing and repairing spacecraft control thrusters by use of portable air locks
[NASA-CASE-NFS-20325] c28 N71-27095
Airlock for waste transferal from pressurized enclosure aboard space vehicle to waste receiver at negative pressure
[NASA-CASE-NFS-20922] c31 N72-20840
Airlock
[NASA-CASE-NFS-20922-1] c18 N74-22136
Apparatus for inserting and removing specimens from high temperature vacuum furnaces
[NASA-CASE-LAR-10841-1] c31 N74-27900

AIR POLLUTION

Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-IGS-01971] c15 N71-15922
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284
Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585
Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656
Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742
Method for detecting pollutants --- through chemical reactions and heat treatment
[NASA-CASE-LAR-11405-1] c45 N76-31714
Combustion engine --- for air pollution control
[NASA-CASE-NPO-13671-1] c37 N77-31497
Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527

AIR PURIFICATION

Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-NFS-12806] c14 N71-17588
Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XMF-03212] c15 N71-22721

AIR SAMPLING

Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824
Sampler of gas borne particles
[NASA-CASE-NPO-13396-1] c35 N76-18401

AIR TRAFFIC CONTROL

Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287
Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
System and method for position locating for air traffic control involving supersonic transports
[NASA-CASE-GSC-10087-3] c07 N72-12080

AIRBORNE EQUIPMENT

Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063

AIRBORNE/SPACEBORNE COMPUTERS

Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-IGS-04766] c08 N71-18602

SUBJECT INDEX

Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

AIRCRAFT

Pilot warning indicator system of intruder aircraft
[NASA-CASE-ERC-10226-1] c14 N73-16483
Thin conformal antenna array for microwave power conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391

AIRCRAFT ACCIDENTS

Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
Battery powered aircraft crash locator transmitter
[NASA-CASE-NFS-16609] c14 N72-21431

AIRCRAFT APPROACH SPACING

Economical satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631

AIRCRAFT COMPARTMENTS

Aircraft design concept
[NASA-CASE-LAR-11852-1] c05 N77-15027
Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety
[NASA-CASE-ARC-11040-2] c24 N78-27184

AIRCRAFT CONFIGURATIONS

Variable sweep wing configuration for supersonic aircraft
[NASA-CASE-XLA-00230] c02 N70-33255
Television simulation for aircraft and space flight
[NASA-CASE-XPR-03107] c09 N71-19449
Design of dual fuselage aircraft with pivoting wing and horizontal stabilizer to permit yawing of wing in flight for high speed operation
[NASA-CASE-ARC-10470-1] c02 N73-26005
Development of aircraft configuration for reduction of jet aircraft noise by exhausting engine gases over upper surface of wing
[NASA-CASE-LAR-11087-1] c02 N73-26008
Variable dihedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132

AIRCRAFT CONSTRUCTION MATERIALS

Ceramic fiber insulating material and method of producing same --- aircraft construction materials
[NASA-CASE-MSC-14795-2] c24 N78-25138

AIRCRAFT CONTROL

Development and characteristics of control system for flexible wings
[NASA-CASE-XLA-06958] c02 N71-11038
Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
[NASA-CASE-XAC-08972] c02 N71-20570
Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-XAC-10019] c15 N71-23809
Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
Development of aircraft control system with high performance electrically controlled and mechanically operated hydraulic valves for precise flight operation
[NASA-CASE-XAC-00048] c02 N71-29128
Development of thrust control system for application to control of aircraft and spacecraft
[NASA-CASE-MSC-13397-1] c21 N72-25595
Aircraft control system for rotary wing aircraft
[NASA-CASE-ERC-10439] c02 N73-19004
Situational display system of cathode ray tubes to assist pilot in aircraft control
[NASA-CASE-ERC-10350] c14 N73-20474
Development of aerodynamic control system to control flutter over large range of oscillatory frequencies using stability augmentation techniques
[NASA-CASE-LAR-10682-1] c02 N73-26004

SUBJECT INDEX

AIRCRAFT STRUCTURES

- Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930
- High lift aircraft --- with improved stability,
control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
- Filtering technique based on high-frequency
plant modeling for high-gain control
[NASA-CASE-LAR-12215-1] c08 N78-17070
- AIRCRAFT DESIGN**
 - Design of supersonic aircraft with novel fixed,
swept wing planform
[NASA-CASE-XLA-04451] c02 N71-12243
 - Design of dual fuselage aircraft with pivoting
wing and horizontal stabilizer to permit
yawing of wing in flight for high speed
operation
[NASA-CASE-ARC-10470-1] c02 N73-26005
 - Multistage aerospace craft --- perspective
drawings of conceptual design
[NASA-CASE-XNP-02263] c05 N74-10907
 - High lift aircraft --- with improved stability,
control, performance, and noise characteristics
[NASA-CASE-LAR-11252-1] c05 N75-25914
 - Oblique-wing supersonic aircraft
[NASA-CASE-ARC-10470-3] c05 N76-29217
 - Aircraft design concept
[NASA-CASE-LAR-11852-1] c05 N77-15027
 - Supersonic transport --- using canard surfaces
[NASA-CASE-LAR-11932-1] c05 N78-32086
- AIRCRAFT DETECTION**
 - Surface based altitude measuring system for
accurately measuring altitude of airborne
vehicle
[NASA-CASE-ERC-10412-1] c09 N73-12211
 - Apparatus for measuring an aircraft's speed and
height
[NASA-CASE-LAR-12275-1] c35 N79-18296
- AIRCRAFT ENGINES**
 - Noise suppressor --- for turbofan engine by
incorporating annular acoustically porous
elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418
 - Auxiliary power system for activity cooled
aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332
 - Dual cycle aircraft turbine engine
[NASA-CASE-LAR-11310-1] c07 N77-28118
 - A portable device particularly suited for use in
starting air-start units for aircraft
[NASA-CASE-ERC-10113-1] c09 N78-19166
- AIRCRAFT EQUIPMENT**
 - Battery powered aircraft crash locator transmitter
[NASA-CASE-MFS-16609] c14 N72-21431
 - Development of radionetric sensor to warn
aircraft pilots of region of clear air
turbulence along flight path
[NASA-CASE-ERC-10081] c14 N72-28437
 - Air speed and attitude probe
[NASA-CASE-ERC-11009-1] c06 N78-25088
- AIRCRAFT FUEL SYSTEMS**
 - Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467
- AIRCRAFT GUIDANCE**
 - Terminal guidance system --- for guiding
aircraft into preselected altitude and/or
heading at terminal point
[NASA-CASE-ERC-10049-1] c04 N74-13420
- AIRCRAFT HAZARDS**
 - Deflector for preventing objects from entering
nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788
- AIRCRAFT HYDRAULIC SYSTEMS**
 - Variable-orifice hydraulic mechanism for
aircraft gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N73-19793
- AIRCRAFT INSTRUMENTS**
 - Aircraft instrument for indicating malfunctions
during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
 - Pressure probe for sensing ambient static air
pressures
[NASA-CASE-XLA-00481] c14 N70-36824
 - Aircraft indicator for pilot control of takeoff
roll, climbout path and verticle flight path
in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157
 - Optical projector system for establishing
optimum arrangement of instrument displays in
aircraft, spacecraft, other vehicles, and
- industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882
- Combined optical attitude and altitude
indicating instrument for use in aircraft or
spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268
- Aircraft horizon and vertical indicator
[NASA-CASE-ERC-10392] c21 N73-14692
- G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381
- Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114
- Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229
- Aircraft-mounted crash-activated transmitter
device
[NASA-CASE-MFS-16609-3] c03 N76-32140
- AIRCRAFT LANDING**
 - Aerodynamic configuration for aircraft capable
of high speed flight and low drag for low
speed takeoff or landing upon presently
existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858
 - Magnetic method for detection of aircraft
position relative to runway
[NASA-CASE-ARC-10179-1] c21 N72-22619
 - Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930
 - Vehicle simulator binocular multiplanar visual
display system
[NASA-CASE-ARC-10808-1] c09 N76-24280
 - Full color hybrid display for aircraft simulators
--- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083
- AIRCRAFT LAUNCHING DEVICES**
 - Rotating launch device for a remotely piloted
aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076
- AIRCRAFT MANEUVERS**
 - G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381
- AIRCRAFT MODELS**
 - Free flight suspension system for use with
aircraft models in wind tunnel tests
[NASA-CASE-XLA-00939] c11 N71-15926
 - Variable geometry wind tunnel for testing
aircraft models at subsonic speeds
[NASA-CASE-XLA-07430] c11 N72-22246
 - Deploy/release system --- model aircraft flight
control
[NASA-CASE-LAR-11575-1] c02 N76-16014
- AIRCRAFT NOISE**
 - Instrumentation for measuring aircraft noise and
sonic boom
[NASA-CASE-LAR-11476-1] c07 N76-27232
- AIRCRAFT PERFORMANCE**
 - Development of auxiliary lifting system to
provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257
- AIRCRAFT PILOTS**
 - Apparatus for applying simulator g-forces to an
arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
- AIRCRAFT SAFETY**
 - Aircraft instrument for indicating malfunctions
during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
 - Development and operating principles of
collision warning system for aircraft accident
prevention
[NASA-CASE-HQN-10703] c21 N73-13643
 - Deployable flexible ventral fins for use as an
emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
- AIRCRAFT STABILITY**
 - Mechanical stabilization system for VTOL aircraft
[NASA-CASE-XLA-06339] c02 N71-13422
 - Development of aerodynamic control system to
control flutter over large range of
oscillatory frequencies using stability
augmentation techniques
[NASA-CASE-LAR-10682-1] c02 N73-26004
 - A velocity vector control system augmented with
direct lift control --- stability augmentation
using manual control
[NASA-CASE-LAR-12268-1] c08 N79-20136
- AIRCRAFT STRUCTURES**
 - Fatigue testing device applying random discrete
load levels to test specimen and applicable to

AIRCRAFT TIRES

SUBJECT INDEX

aircraft structures
[NASA-CASE-XLA-02131] c32 N70-42003

Heat flux sensor adapted for mounting on
aircraft or spacecraft to measure aerodynamic
heat flux inflow to aircraft skin
[NASA-CASE-IPR-03802] c33 N71-23085

Three-axis adjustable loading structure
[NASA-CASE-FRC-10051-1] c35 N74-13129

Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

Tow bar for aircraft
[NASA-CASE-FRC-11022-1] c09 N79-10069

AIRCRAFT TIRES
Improved tire/wheel concept
[NASA-CASE-LAR-11695-1] c37 N78-22374

AIRCRAFT WAKES
Vortex attenuation method --- for multi-engine
aircraft
[NASA-CASE-LAR-12034-1] c02 N77-22045

An improved system for use in conducting wake
investigation for a wing in flight ---
differential pressure measurements for drag
investigations
[NASA-CASE-FRC-11024-1] c02 N79-17797

AIRFOIL FENCES
Smokestack-mounted airfoil
[NASA-CASE-LAR-11669-1] c45 N79-10570

AIRFOILS
Electric analog for measuring induced drag on
nonplanar airfoils
[NASA-CASE-XLA-00755] c01 N71-13410

Electric analog for measuring induced drag on
nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411

Miniature hydraulic actuator --- for control
surfaces on airfoils
[NASA-CASE-LAR-11522-1] c34 N74-34881

Wind tunnel
[NASA-CASE-LAR-10135-1] c09 N79-21083

Surface finishing --- adhesive bonding of
plastic film to metal airfoil surfaces
[NASA-CASE-MSC-12631-3] c26 N79-21183

AIRFRAMES
Design of dual fuselage aircraft with pivoting
wing and horizontal stabilizer to permit
yawing of wing in flight for high speed
operation
[NASA-CASE-ARC-10470-1] c02 N73-26005

AIRSPED
Aerodynamic configuration for aircraft capable
of high speed flight and low drag for low
speed takeoff or landing upon presently
existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

Air speed and attitude probe
[NASA-CASE-FRC-11009-1] c06 N78-25088

Apparatus for measuring an aircraft's speed and
height
[NASA-CASE-IAR-12275-1] c35 N79-18296

ALCOHOLS
New trifunctional alcohol derived from trimer
acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244

Cooling and radiation protection of ruby lasers
using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440

ALDEHYDES
Direct synthesis of polymeric schiff bases from
two amines and two aldehydes
[NASA-CASE-XMP-08655] c06 N71-11239

Synthesis of azine polymers for heat shields by
azine-aromatic aldehyde reaction
[NASA-CASE-XMP-08656] c06 N71-11242

Synthesis of aromatic diamines and dialdehyde
polymers using Schiff base
[NASA-CASE-XMP-03074] c06 N71-24740

Nuclear alkylated pyridine aldehyde polymers and
conductive compositions thereof
[NASA-CASE-NPO-10557] c27 N78-17214

ALIGNMENT
Centering device with ultrafine adjustment for
use with roundness measuring apparatus
[NASA-CASE-XMP-00480] c14 N70-39898

Portable device for aligning surfaces of two
adjacent wall or sheet sections for joining at
point of junction
[NASA-CASE-XMP-01452] c15 N70-41371

Electro-optical/computer system for aligning
large structural members and maintaining
correct position
[NASA-CASE-XNP-02029] c14 N70-41955

Electrical and electromechanical trigonometric
computation assembly and space vehicle
guidance system for aligning perpendicular
axes of two sets of three-axes coordinate
references
[NASA-CASE-XMP-00684] c21 N71-21688

Description of device for aligning stacked
sheets of paper for repetitive cutting
[NASA-CASE-YMS-04178] c15 N71-22798

Laser beam projector for continuous, precise
alignment between target, laser generator, and
astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125

Measuring roll alignment of test body with
respect to reference body
[NASA-CASE-GSC-10514-1] c14 N72-20379

Apparatus for aligning shadow shields and
cryogenic storage tanks in outer space with
the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893

Design of precision vertical alignment system
using laser with gravitationally sensitive
cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397

Spacecraft docking and alignment system ---
using television camera system
[NASA-CASE-MSC-12559-1] c18 N76-14186

Method of constructing dish ion thruster grids
to provide hole array spacing compensation
[NASA-CASE-LEW-11876-1] c20 N76-21276

Optical alignment device
[NASA-CASE-ARC-10932-1] c74 N76-22993

Precision alignment apparatus for cutting a
workpiece
[NASA-CASE-LAR-11658-1] c37 N77-14478

Guide for a typewriter
[NASA-CASE-MFS-15218-1] c37 N77-19457

Rotary target V-block --- for optical alignment
of machinery
[NASA-CASE-LAR-12007-1] c74 N78-15883

Dual acting slit control mechanism
[NASA-CASE-LAR-11370-1] c35 N78-32399

ALKALI METALS
Ultraviolet radiation resistant alkali-metal
silicate coatings for temperature control of
spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979

Analytical test apparatus and method for
determining oxygen content in alkali liquid
metal
[NASA-CASE-XLE-01997] c06 N71-23527

Composition and production method of alkali
metal silicate paint with ultraviolet
reflection properties
[NASA-CASE-XGS-04799] c18 N71-24183

Design and characteristics of heat activated
electric cell with anode made from one or more
alkali metals and cathode made from oxidizing
material
[NASA-CASE-LEW-11358] c03 N71-26084

Method for producing alkali metal dispersions of
high purity
[NASA-CASE-XNP-08876] c17 N73-28573

Alkali-metal silicate binders and methods of
manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217

Process for preparing higher oxides of the
alkali and alkaline earth metals
[NASA-CASE-ARC-10992-1] c26 N78-32229

ALKALINE BATTERIES
Method for determining state of charge of alkali
batteries by using tritium as tracer
[NASA-CASE-XNP-01464] c03 N71-10728

Alkaline-type coulometer cell for primary charge
control in secondary battery recharge circuits
[NASA-CASE-XGS-05434] c03 N71-20491

Electrocatalyst for oxygen reduction in low
temperature alkaline fuel cell
[NASA-CASE-HQN-10537-1] c06 N72-10138

Flexible formulated plastic separators for
alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552

Inorganic-organic separators for alkaline
batteries
[NASA-CASE-LEW-12649-1] c44 N78-25530

SUBJECT INDEX

AMINES

- Cross-linked polyvinyl alcohol and method of making same --- separator for alkaline batteries
[NASA-CASE-LEW-13101-1] c25 N79-14173
- In-situ cross-linking of polyvinyl alcohol --- polymeric films for separators in alkaline batteries
[NASA-CASE-LEW-13135-1] c25 N79-14174
- ALKALINE EARTH OXIDES**
Process for preparing higher oxides of the alkali and alkaline earth metals
[NASA-CASE-ABC-10992-1] c26 N78-32229
- ALKYL COMPOUNDS**
Preparation of fluoroalkoxy ethers by reacting fluoroalkylene oxides with alkali salt of polyfluoroalkylene diol
[NASA-CASE-MFS-10507] c06 N73-30101
- ALLOYS**
Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
- Metal alloy bearing materials for space applications
[NASA-CASE-XLE-05033] c15 N71-23810
- High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875
- Adjustable rigid mount for trihedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
[NASA-CASE-XNP-08907] c23 N71-29123
- Two-step diffusion welding process of unrecrystallized alloys
[NASA-CASE-LEW-11388-1] c15 N73-32358
- Brazing alloy binder
[NASA-CASE-XNP-05868] c26 N75-27125
- Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127
- Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown
[NASA-CASE-MFS-23816-1] c26 N79-16943
- A method and alloy for making electrical connections to conductive thin film
[NASA-CASE-GSC-12404-1] c33 N79-17135
- ALPHA PARTICLES**
Method and means for helium/hydrogen ratio measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c35 N79-12416
- ALPHANUMERIC CHARACTERS**
X-Y alphanumeric character generator for oscilloscopes
[NASA-CASE-GSC-11582-1] c33 N75-19517
- ALTERNATING CURRENT**
Characteristics of high power, low distortion, alternating current power amplifier
[NASA-CASE-LAR-10218-1] c09 N70-34559
- Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418
- Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
[NASA-CASE-XMS-06061] c05 N71-23317
- Solid state circuit for switching alternating current input signal as function of direct current gating transistor
[NASA-CASE-XNP-06505] c10 N71-24799
- Device for voltage conversion using controlled pulse widths and arrangements to generate ac output voltage
[NASA-CASE-MFS-10068] c10 N71-25139
- Inverters for changing direct current to alternating current
[NASA-CASE-XGS-06226] c10 N71-25950
- Dc to ac to dc converter with transistor driven synchronous rectifiers
[NASA-CASE-GSC-11126-1] c09 N72-25253
- Phase protection system for ac power lines
[NASA-CASE-MSC-17832-1] c33 N74-14956
- ALTITUDE**
Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268
- ALTITUDE CONTROL**
Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925
- ALUMINUM**
Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-MFS-07369] c15 N71-20443
- Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
[NASA-CASE-XLA-01995] c18 N71-23047
- Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dischromate for adhesive bonding
[NASA-CASE-XNP-02303] c17 N71-23828
- Process for producing dispersion strengthened nickel with aluminum comprising metallic matrices embedded with oxides or other hyperfine compounds
[NASA-CASE-XLE-06969] c17 N71-24142
- Nickel plating onto etched aluminum castings
[NASA-CASE-XNP-04148] c17 N71-24830
- Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903
- Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579
- Heat activated cell with aluminum anode
[NASA-CASE-LEW-11359-2] c03 N72-20034
- Method of preparing graphite reinforced aluminum composite
[NASA-CASE-MFS-21077-1] c24 N75-28135
- Method of fluxless brazing and diffusion bonding of aluminum containing components
[NASA-CASE-MSC-14435-1] c37 N76-18455
- Recovery of aluminum and binder from composite propellants
[NASA-CASE-NPO-14110-1] c28 N79-10225
- Method for making an aluminum or copper substrate panel for selective absorption of solar energy
[NASA-CASE-MFS-23518-1] c44 N79-11469
- ALUMINUM ALLOYS**
High strength aluminum casting alloy for cryogenic applications in aerospace engineering
[NASA-CASE-XNP-02786] c17 N71-20743
- Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dischromate for adhesive bonding
[NASA-CASE-XNP-02303] c17 N71-23828
- Method of producing complex aluminum alloy parts of high temper, and products thereof
[NASA-CASE-MSC-19693-1] c26 N78-24333
- ALUMINUM COATINGS**
Intermetallic chromium containing nickel aluminide for high temperature corrosion protection of stainless steels
[NASA-CASE-LEW-11267-1] c17 N73-32414
- Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209
- Method of protecting the surface of a substrate --- by applying aluminide coating
[NASA-CASE-LEW-11696-1] c37 N75-13261
- Duplex aluminized coatings
[NASA-CASE-LEW-11696-2] c26 N75-19408
- Meteoroid impact position locator aid for manned space station
[NASA-CASE-LAR-10629-1] c35 N75-33367
- ALUMINUM OXIDES**
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992
- ALUMINUM SILICATES**
White paint production by heating impure aluminum silicate clay having low solar absorptance
[NASA-CASE-XNP-02139] c18 N71-24184
- AMINES**
Direct synthesis of polymeric schiff bases from two amines and two aldehydes

AMINO ACIDS

SUBJECT INDEX

[NASA-CASE-IMP-08655] c06 N71-11239
 Synthesis of schiff bases for heat shields by
 acetal amine reactions
 [NASA-CASE-IMP-08652] c06 N71-11243
 Polyimide foam for the thermal insulation and
 fire protection
 [NASA-CASE-ARC-10464-1] c27 N74-12812
 Automated analysis of oxidative metabolites
 [NASA-CASE-ARC-10469-1] c25 N75-12086

AMINO ACIDS
 Amino acid analysis
 [NASA-CASE-NPO-12130-1] c25 N75-14844

AMMONIA
 Solid state chemical source for ammonia beam
 masers
 [NASA-CASE-XGS-01504] c16 N70-41578
 On-site ammonia plant
 [NASA-CASE-NPO-10233-1] c25 N78-27233

AMMONIUM NITRATES
 High performance ammonium nitrate propellant
 [NASA-CASE-NPO-14260] c28 N78-17230

AMMONIUM PERCHLORATES
 Ammonium perchlorate composite propellant with
 organic Cu/II/ chelate catalytic additive
 [NASA-CASE-LAR-10173-1] c27 N71-14090
 Process for the leaching of AP from propellant
 [NASA-CASE-NPO-14109-1] c28 N79-10227

AMORPHOUS MATERIALS
 A process for converting amorphous to
 crystalline silicon with attendant purification
 [NASA-CASE-NPO-14223-1] c25 N79-10168

AMPLIFICATION
 Automatic measuring and recording of gain and
 zero drift characteristics of electronic
 amplifier
 [NASA-CASE-XMS-05562-1] c09 N69-39986
 Clamped amplifier circuit for horizon scanner
 enabling amplification and accurate
 measurement of specified parameters
 [NASA-CASE-XGS-01784] c10 N71-20782
 Diversity receiving system with diversity phase
 lock
 [NASA-CASE-XGS-01222] c10 N71-20841
 Design of active RC network capable of operating
 at high Q values with reduced sensitivity to
 gain amplification and number of passive
 components
 [NASA-CASE-ARC-10042-2] c10 N72-11256
 Amplifying circuit with constant current source
 for accumulator load and high gain voltage
 amplification
 [NASA-CASE-NPO-11023] c09 N72-17155
 Independent gain and bandwidth control of a
 traveling wave maser
 [NASA-CASE-NPO-13801-1] c36 N78-18410

AMPLIFIER DESIGN
 Automatic gain control amplifier system
 [NASA-CASE-XMS-05307] c09 N69-24330
 Bio-isolated dc operational amplifier --- for
 bioelectric measurements
 [NASA-CASE-ARC-10596-1] c33 N74-21851
 Dual mode solid state power switch
 [NASA-CASE-MPS-22880-2] c33 N77-31407

AMPLIFIERS
 Development of stable electronic amplifier
 adaptable for monolithic and thin film
 construction
 [NASA-CASE-XGS-02812] c09 N71-19466
 Ear oximeter for monitoring blood oxygenation
 and pressure, pulse rate, and pressure pulse
 curve, using dc and ac amplifiers
 [NASA-CASE-XAC-05422] c04 N71-23185
 Comb type traveling wave maser amplifier for
 improved high gain broadband output
 [NASA-CASE-NPO-10548] c16 N71-24831
 Vibrophonocardiograph comprising low weight and
 small volume piezoelectric microphone with
 amplifier having high input impedance for high
 sensitivity and low frequency response
 [NASA-CASE-XPR-07172] c05 N71-27234
 Digital data handling circuits for pulse
 amplifiers
 [NASA-CASE-IMP-01068] c10 N71-28739
 Active RC filter networks and amplifiers for
 deep space magnetic field measurement
 [NASA-CASE-XAC-05462-2] c10 N72-17171
 Full wave modulator-demodulator amplifier
 apparatus --- for generating rectified output
 signal

[NASA-CASE-FRC-10072-1] c33 N74-14939
 Automatic focus control for facsimile cameras
 [NASA-CASE-LAR-11213-1] c35 N75-15014
 Reflected-wave maser --- low noise amplifier
 [NASA-CASE-NPO-13490-1] c36 N76-31512
 A laser apparatus
 [NASA-CASE-GSC-12237-1] c36 N78-10445

AMPLITUDE DISTRIBUTION ANALYSIS
 Monitoring system for signal amplitude ranges
 over predetermined time interval
 [NASA-CASE-XMS-04061-1] c09 N69-39885
 Cathode ray oscilloscope for analyzing
 electrical waveforms representing amplitude
 distribution of time function
 [NASA-CASE-IMP-01383] c09 N71-10659
 Analog to digital converter circuit for pulse
 height analysis
 [NASA-CASE-IMP-00477] c08 N73-28045

AMPLITUDE MODULATION
 Alternating current signal generator providing
 plurality of amplitude modulated output signals
 [NASA-CASE-XMS-05612] c09 N69-21468
 Development of demodulation system for removing
 amplitude modulation from two quadrature
 displaced data bearing signals
 [NASA-CASE-XAC-04030] c10 N71-19472
 Development of apparatus for amplitude
 modulation of diode laser by periodic
 discharge of direct current power supply
 [NASA-CASE-XMS-04269] c16 N71-22895
 Vibrating element electrometer producing high
 conversion gain by input current control of
 elements resonant frequency displacement
 amplitude
 [NASA-CASE-XAC-02807] c09 N71-23021
 Scanning signal phase and amplitude electronic
 control device with hybrid T waveguide junction
 [NASA-CASE-NPO-10302] c10 N71-26142
 High efficiency transformerless amplitude
 modulator coupled to RF power amplifier
 [NASA-CASE-GSC-10668-1] c07 N71-28430
 Gated compressor, distortionless signal limiter
 [NASA-CASE-NPO-11820-1] c32 N74-19788
 Amplitude steered array
 [NASA-CASE-GSC-11446-1] c33 N74-20860
 Stark-effect modulation of CO2 laser with NH2D
 [NASA-CASE-NPO-11945-1] c36 N76-18427

AMPLITUDES
 Circuits for amplitude limiting of random noise
 inputs
 [NASA-CASE-NPO-10169] c10 N71-24844

ANALGESIA
 Indomethacin-antihistamine combination for
 gastric ulceration control
 [NASA-CASE-ARC-11118-1] c52 N78-11692
 Indomethacin-antihistamine combination for
 gastric ulceration control
 [NASA-CASE-ARC-11118-2] c52 N79-14755

ANALOG CIRCUITS
 Electric network for monitoring temperatures,
 detecting critical temperatures, and
 indicating critical time duration
 [NASA-CASE-IMP-01097] c10 N71-16058
 Automatic closed circuit television arc guidance
 control for welding joints
 [NASA-CASE-MPS-13046] c07 N71-19433
 Electronic divider and multiplier for analog
 electric signals
 [NASA-CASE-XPR-05637] c09 N71-19480
 Continuous Fourier transform method and apparatus
 --- for the analysis of simultaneous analog
 signal components
 [NASA-CASE-ARC-10466-1] c60 N75-13539
 Electronic analog divider
 [NASA-CASE-LEW-11881-1] c33 N77-17354

ANALOG COMPUTERS
 Analog spatial maneuver computer with three
 output angles for obtaining desired spatial
 attitude
 [NASA-CASE-GSC-10880-1] c08 N72-11172

ANALOG DATA
 Data compression processor for monitoring analog
 signals by sampling procedure
 [NASA-CASE-NPO-10068] c08 N71-19288
 Wide range analog data compression system
 [NASA-CASE-XGS-02612] c08 N71-19435
 Analog signal to discrete time converter
 [NASA-CASE-ERC-10048] c09 N72-25251

SUBJECT INDEX

ANODES

- Digital plus analog output encoder
[NASA-CASE-GSC-12115-1] c62 N76-31946
- Velocity measurement system
[NASA-CASE-NFS-23363-1] c35 N78-32396
- ANALOG SIMULATION**
Apparatus for simulating optical transmission links
[NASA-CASE-GSC-11877-1] c74 N76-18913
- ANALOG TO DIGITAL CONVERTERS**
Conversion system for increasing resolution of analog to digital converters
[NASA-CASE-XAC-00404] c08 N70-40125
- Analog to digital converter for converting pulses to frequencies
[NASA-CASE-XLA-00670] c08 N71-12501
- Describing continuous analog to digital converter with parallel digital output and nonlinear feedback
[NASA-CASE-XAC-04031] c08 N71-18594
- Voltage drift compensation circuit for analog-to-digital converter
[NASA-CASE-XNP-04780] c08 N71-19687
- Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
[NASA-CASE-LEW-10345-1] c10 N71-25899
- Data acquisition system for converting displayed analog signal to digital values
[NASA-CASE-NPO-10344] c10 N71-26544
- Apparatus for automatically testing analog to digital converters for open and short circuits
[NASA-CASE-XLA-06713] c14 N71-28991
- Wide range analog to digital converter with variable gain amplifier
[NASA-CASE-NPO-11018] c08 N72-21200
- Analog to digital converter using offset voltage to eliminate errors
[NASA-CASE-MSC-13110-1] c08 N72-22163
- Analog to digital converter analyzing system
[NASA-CASE-NPO-10560] c08 N72-22166
- Control and information system for digital telemetry data using analog converter to digitize sensed parameter values
[NASA-CASE-NPO-11016] c08 N72-31226
- Nonrecursive counting digital filter containing shift register
[NASA-CASE-NPO-11821-1] c08 N73-26175
- Analog to digital converter circuit for pulse height analysis
[NASA-CASE-XNP-00477] c08 N73-28045
- Analog to digital converter
[NASA-CASE-NPO-13385-1] c33 N76-18345
- Analog to digital converter for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731
- Electrochemical data signal process and display
[NASA-CASE-LAR-11922-1] c25 N78-17171
- ANALYZERS**
Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199
- Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-XNP-09451] c06 N71-26754
- Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N73-20477
- NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502
- Cosmic dust analyzer
[NASA-CASE-MSC-13802-2] c35 N76-15431
- Optically selective, acoustically resonant gas detecting transducer
[NASA-CASE-ARC-10639-1] c35 N78-13400
- ANEMOMETERS**
Anemometer with braking mechanism to prevent rotation of wind driven elements
[NASA-CASE-XNP-05224] c14 N71-23726
- Maxometers for measuring peak wind speeds during severe environmental conditions
[NASA-CASE-NFS-20916] c14 N73-25460
- ANGIOGRAPHY**
Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ARC-10985-1] c52 N79-10724
- ANGLE OF ATTACK**
Angle detector
[NASA-CASE-ARC-11036-1] c35 N78-32395
- Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N79-17813
- ANGLES (GEOMETRY)**
Gage for measuring internal angle of flare on end of tube
[NASA-CASE-XNP-04415] c14 N71-24693
- Optical device containing rotatable prism and reflecting mirror for generating precise angles
[NASA-CASE-XGS-04173] c19 N71-26674
- Rotating raster generator
[NASA-CASE-FRC-10071-1] c32 N74-20813
- Solar cell angular position transducer
[NASA-CASE-LAR-11999-1] c35 N78-18394
- ANGULAR ACCELERATION**
Strain gage accelerometer for angular acceleration measurement
[NASA-CASE-XMS-05936] c14 N70-41682
- ANGULAR CORRELATION**
Device for determining relative angular position of spacecraft and radiating celestial body
[NASA-CASE-GSC-11444-1] c14 N73-28490
- ANGULAR DISTRIBUTION**
Noncontacting method for measuring angular deflection
[NASA-CASE-LAR-12178-1] c74 N79-11866
- ANGULAR MOMENTUM**
Stretch Yo-Yo mechanism for reducing initial spin rate of space vehicle
[NASA-CASE-XGS-00619] c30 N70-40016
- ANGULAR RESOLUTION**
Characteristics and performance of electrical system to determine angular rotation
[NASA-CASE-XNP-00447] c14 N70-33179
- ANGULAR VELOCITY**
Describing angular position and velocity sensing apparatus
[NASA-CASE-XGS-05680] c14 N71-17585
- ANHYDRIDES**
Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides
[NASA-CASE-NFS-22356-1] c23 N75-30256
- ANILINE**
Synthesis of high purity dianilinosilanes
[NASA-CASE-XNP-06409] c06 N71-23230
- ANIMALS**
Automatic real-time pair-feeding system for animals
[NASA-CASE-ARC-10302-1] c51 N74-15778
- Tread drum for animals --- having an electrical shock station
[NASA-CASE-ARC-10917-1] c51 N78-27733
- ANISOTROPIC MEDIA**
Hybrid composite laminate structures
[NASA-CASE-LEW-12118-1] c24 N77-27188
- ANNEALING**
Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
- A phase insensitive ultrasonic transducer --- annealing cadmium sulfide crystals
[NASA-CASE-LAR-12304-1] c71 N78-29871
- ANNULAR NOZZLES**
Large area-ratio nozzles for rocket motor thrust chambers
[NASA-CASE-XLE-00145] c28 N70-36806
- Electrostatic microthrust propulsion system with annular slit colloid thruster
[NASA-CASE-GSC-10709-1] c28 N71-25213
- ANNULAR PLATES**
Bluff-shaped annular configuration for supersonic decelerator for reentry vehicles
[NASA-CASE-XLE-00222] c02 N70-37939
- ANNULI**
An annular wing
[NASA-CASE-FRC-11007-1] c02 N78-19055
- ANODES**
Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
[NASA-CASE-LEW-11358] c03 N71-26084

ANODIC COATINGS

SUBJECT INDEX

Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions
 [NASA-CASE-NPO-11806-1] c44 N74-19693

Resistive anode image converter
 [NASA-CASE-HQN-10876-1] c33 N76-27473

Rechargeable battery which combats shape change of the zinc anode
 [NASA-CASE-HQN-10862-1] c44 N76-29699

Arc control in compact arc lamps
 [NASA-CASE-NPO-10870-1] c33 N77-22386

ANODIC COATINGS
 Anodizing method for providing metal surfaces with temperature reducing coatings against flames
 [NASA-CASE-XLE-00035] c33 N71-29151

Anode for ion thruster
 [NASA-CASE-LEW-12048-1] c20 N77-20162

ANTENNA ARRAYS
 Monopole antenna system for maximum omnidirectional efficiency for use on satellites
 [NASA-CASE-XLA-00414] c07 N70-38200

Radio receiver with array of independently steerable antennas for deep space communication
 [NASA-CASE-XLA-00901] c07 N71-10775

Characteristics of antenna horn feeds consisting of central horn with overlapping peripheral horns
 [NASA-CASE-GSC-10452] c07 N71-12396

Tracking antenna system with array for synchronous satellite or ground based radar
 [NASA-CASE-GSC-10553-1] c07 N71-19854

Interferometric tuning acquisition and tracking radar antenna system
 [NASA-CASE-XMS-09610] c07 N71-24625

Development of electronic circuit for combining input signals on two separate antennas to form two processed signals
 [NASA-CASE-MSC-12205-1] c07 N71-27056

Antenna array at focal plane of reflector with coupling network for beam switching
 [NASA-CASE-GSC-10220-1] c07 N71-27233

Pattern and impedance matching improvements in transversely polarized triaxial antenna
 [NASA-CASE-IGS-02290] c07 N71-28809

Planar array circularly polarized antenna with wall slot excitation
 [NASA-CASE-NPO-10301] c07 N72-11148

Vertically stacked collinear array of independently fed omnidirectional antennas for use in collision warning systems on commercial aircraft
 [NASA-CASE-LAR-10545-1] c09 N72-21244

Circularly polarized antenna with linearly polarized pair of elements
 [NASA-CASE-ERC-10214] c09 N72-31235

Development of phase control coupling for use with phased array antenna
 [NASA-CASE-ERC-10285] c10 N73-16206

Plural beam antenna with parabolic reflectors
 [NASA-CASE-GSC-11013-1] c09 N73-19234

Amplitude steered array
 [NASA-CASE-GSC-11446-1] c33 N74-20860

Position determination systems --- using orbital antenna scan of celestial bodies
 [NASA-CASE-MSC-12593-1] c17 N76-21250

Phase conjugation method and apparatus for an active retrodirective antenna array
 [NASA-CASE-NPO-13641-1] c32 N77-24340

Thin conformal antenna array for microwave power conversions
 [NASA-CASE-NPO-13886-1] c32 N78-24391

RF beam center location method and apparatus for power transmission system
 [NASA-CASE-NPO-13821-1] c44 N78-28594

Phased array antenna control
 [NASA-CASE-MSC-14939-1] c32 N79-11264

Frequency translating phase conjugation circuit for active retrodirective antenna array
 [NASA-CASE-NPO-14536-1] c32 N79-14277

Coaxial phased array antenna --- spacecraft antenna
 [NASA-CASE-MSC-16800-1] c32 N79-19194

ANTENNA COMPONENTS
 Digital servo controller --- for rotating antenna shaft
 [NASA-CASE-KSC-10769-1] c33 N74-29556

ANTENNA COUPLERS
 Dual band combiner for horn antenna

[NASA-CASE-NPO-14519-1] c32 N79-17068

ANTENNA DESIGN
 Development and characteristics of low-noise multimode monopulse antenna feed system for use with microwave communication equipment
 [NASA-CASE-XNP-01735] c07 N71-22750

Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield
 [NASA-CASE-XMS-04312] c07 N71-22984

Development of electronic circuit for combining input signals on two separate antennas to form two processed signals
 [NASA-CASE-MSC-12205-1] c07 N71-27056

Development and characteristics of extensible dipole antenna using deformable tubular metallic strip element
 [NASA-CASE-HQN-00937] c07 N71-28979

Development of method for suppressing excitation of electromagnetic surface waves on dielectric converter antenna
 [NASA-CASE-XLA-10772] c07 N71-28980

Target acquisition antenna feed with reflector system
 [NASA-CASE-GSC-10064-1] c10 N72-22235

Collapsible high gain antenna which can be automatically expanded to operating state
 [NASA-CASE-KSC-10392] c07 N73-26117

Dish antenna having switchable beamwidth --- with truncated concave ellipsoid subreflector
 [NASA-CASE-GSC-11760-1] c33 N75-19516

Horn antenna having V-shaped corrugated slots
 [NASA-CASE-LAR-11112-1] c32 N76-15330

Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
 [NASA-CASE-NPO-13568-1] c32 N76-21365

Furlable antenna --- antenna design
 [NASA-CASE-NPO-13553-1] c33 N76-32457

Dual frequency circularly polarized microwave integrated antenna
 [NASA-CASE-MSC-16100-1] c32 N77-15233

Microstrip back-fire antenna
 [NASA-CASE-LAR-12172-1] c32 N78-29310

Coaxial phased array antenna --- spacecraft antenna
 [NASA-CASE-MSC-16800-1] c32 N79-19194

ANTENNA FEEDS
 Design and operation of multi-feed cone Cassegrain antenna
 [NASA-CASE-NPO-10539] c07 N71-11285

Characteristics of antenna horn feeds consisting of central horn with overlapping peripheral horns
 [NASA-CASE-GSC-10452] c07 N71-12396

Target acquisition antenna feed with reflector system
 [NASA-CASE-GSC-10064-1] c10 N72-22235

Multimode antenna feed system for microwave and broadband communication
 [NASA-CASE-GSC-11046-1] c07 N73-28013

Low loss dichroic plate
 [NASA-CASE-NPO-13171-1] c32 N74-11000

High efficiency multifrequency feed
 [NASA-CASE-GSC-11909] c32 N74-20863

Single frequency, two feed dish antenna having switchable beamwidth
 [NASA-CASE-GSC-11968-1] c32 N76-15329

Reflex feed system for dual frequency antenna with frequency cutoff means
 [NASA-CASE-NPO-14022-1] c32 N78-31321

ANTENNA RADIATION PATTERNS
 Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
 [NASA-CASE-XMS-05303] c07 N69-27462

Multiple mode horn antenna with radiation pattern of equal beamwidths and suppressed sidelobes
 [NASA-CASE-XNP-01057] c07 N71-15907

Monopulse scanning network for scanning volumetric antenna pattern
 [NASA-CASE-GSC-10299-1] c09 N71-24804

High impact antennas with high radiating efficiency
 [NASA-CASE-NPO-10231] c07 N71-26101

Pattern and impedance matching improvements in transversely polarized triaxial antenna

SUBJECT INDEX

ARC WELDING

- [NASA-CASE-XGS-02290] c07 N71-28809
Dielectric loaded aperture antenna with
directive radiation pattern from waveguide
[NASA-CASE-LAR-11084-1] c09 N73-12216
System for locating lightning strokes by
coordination of directional antenna signals
[NASA-CASE-KSC-10729-1] c09 N73-32110
Highly efficient antenna system using a
corrugated horn and scanning hyperbolic
reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365
Dual frequency circularly polarized microwave
integrated antenna
[NASA-CASE-MSC-16100-1] c32 N77-15233
Real-time multiple-look synthetic aperture radar
processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278
- ANTENNAS**
Antenna design with self erecting mesh reflector
[NASA-CASE-XGS-09190] c31 N71-16102
High impact antennas with high radiating
efficiency
[NASA-CASE-NPO-10231] c07 N71-26101
Collapsible antenna boom and coaxial
transmission line having inflatable inner tube
[NASA-CASE-MFS-20068] c07 N71-27191
Conical reflector antenna with feed
approximating line source
[NASA-CASE-NPO-10303] c07 N72-22127
Microstrip back-fire antenna
[NASA-CASE-LAR-12172-1] c32 N78-29310
- ANTI-AIRCRAFT MISSILES**
Antiaircraft system and method employing small
projectiles
[NASA-CASE-PRC-11006-1] c99 N79-10995
- ANTIBIOTICS**
Determination of antimicrobial susceptibilities
on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750
- ANTIFRICTION BEARINGS**
Development of hybrid bearing lubrication system
with combination of standard type lubrication
and magnetic flux field for earth atmosphere
and space environment operation
[NASA-CASE-INP-01641] c15 N71-22997
Development of rolling element bearing for
operation in ultrahigh vacuum environment
[NASA-CASE-XLE-09527-2] c15 N71-26189
Development of optical system for detecting
defective components in rotating machinery
with emphasis on bearing assemblies
[NASA-CASE-KSC-10752-1] c15 N73-27407
Fatigue life of hybrid antifriction bearings at
ultrahigh speeds
[NASA-CASE-LEW-11152-1] c15 N73-32359
Hollow high strength rolling elements for
antifriction bearings fabricated from
preformed components
[NASA-CASE-LEW-11026-1] c15 N73-33383
Method of making bearing materials ---
self-lubricating, oxidation resistant
composites for high temperature applications
[NASA-CASE-LEW-11930-4] c24 N79-17916
- ANTI-GRAVITY**
Anti-gravity device
[NASA-CASE-MFS-22758-1] c70 N75-26789
- ANTIHISTAMINICS**
Indomethacin-antihistamine combination for
gastric ulceration control
[NASA-CASE-ARC-11118-1] c52 N78-11692
Indomethacin-antihistamine combination for
gastric ulceration control
[NASA-CASE-ARC-11118-2] c52 N79-14755
- ANTIREFLECTION COATINGS**
Silicon nitride coated, plastic covered solar cell
[NASA-CASE-LEW-11496-1] c44 N77-14580
- ANVILS**
Exponential horn, copper plate, magnetic hammer,
and anvil in apparatus for making diamonds
[NASA-CASE-MFS-20698] c15 N72-20446
- APERTURES**
Apertured electrode focusing system for ion
sources with nonuniform plasma density
[NASA-CASE-INP-03332] c09 N71-10618
Threshold fastener apparatus comprising
receiving apertures for plurality of articles,
self-locked condition, and capable of using
nonmalleable materials in both ends
[NASA-CASE-IFR-05302] c15 N71-23254
- Apparatus for on-film optical recording of
camera lens aperture and focus setting
[NASA-CASE-MSC-12363-1] c14 N73-26431
Method of forming aperture plate for electron
microscope
[NASA-CASE-ARC-10448-2] c74 N75-12732
Method of making an apertured casting --- using
duplicate mold
[NASA-CASE-LEW-11169-1] c37 N76-23570
Electron microscope aperture system
[NASA-CASE-ARC-10448-3] c35 N77-14408
Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266
- APOLLO PROJECT**
Intra- and extravehicular life support space
suite for Apollo astronauts
[NASA-CASE-MSC-12609-1] c05 N73-32012
- APOLLO SPACECRAFT**
Low onset rate energy absorber in form of strut
assembly for crew couch of Apollo command module
[NASA-CASE-MSC-12279-1] c15 N70-35679
Energy absorbing crew couch strut for Apollo
command module
[NASA-CASE-MSC-12279] c15 N72-17450
- APPLICATIONS OF MATHEMATICS**
Apparatus for computing square roots
[NASA-CASE-XGS-04768] c08 N71-19437
- APPROACH INDICATORS**
Spectrally balanced chromatic landing approach
lighting system
[NASA-CASE-ARC-10990-1] c04 N77-12031
- AQUEOUS SOLUTIONS**
Anti-fog composition --- for prevention of
fogging on surfaces such as space helmet
visors and windshields
[NASA-CASE-MSC-13530-2] c23 N75-14834
Automated system for identifying traces of
organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245
Method of cross-linking polyvinyl alcohol and
other water soluble resins
[NASA-CASE-LEW-13103-1] c25 N79-14172
- ARC DISCHARGES**
Development of device to prevent high voltage
arcing in electron beam welding
[NASA-CASE-INP-08522] c15 N71-19486
Direct current powered self repeating plasma
accelerator with interconnected annular and
linear discharge channels
[NASA-CASE-XLA-03103] c25 N71-21693
Method and apparatus for nondestructive testing
--- using high frequency arc discharges
[NASA-CASE-MFS-21233-1] c38 N74-15395
Sustained arc ignition system
[NASA-CASE-LEW-12444-1] c33 N77-28385
- ARC HEATING**
Magnetically diffused radial electric arc heater
[NASA-CASE-XLA-00330] c33 N70-34540
Electric arc device for minimizing electrode
ablation and heating gases to supersonic or
hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628
Annular arc accelerator shock tube
[NASA-CASE-NPO-13528-1] c09 N77-10071
- ARC JET ENGINES**
Improving performance of magnetoplasma dynamic
arc rocket engine
[NASA-CASE-LEW-11180-1] c25 N73-25760
- ARC LAMPS**
Starting circuit design for initiating and
maintaining arcs in vapor lamps
[NASA-CASE-INP-01058] c09 N71-12540
Compact, high intensity arc lamp with internal
magnetic field producing means
[NASA-CASE-NPO-11510-1] c33 N77-21315
Depressurization of arc lamps
[NASA-CASE-NPO-10790-1] c33 N77-21316
Arc control in compact arc lamps
[NASA-CASE-NPO-10870-1] c33 N77-22386
Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238
- ARC WELDING**
Emission spectroscopy method for contamination
monitoring of inert gas metal arc welding
[NASA-CASE-INP-02039] c15 N71-15871
Automatic closed circuit television arc guidance
control for welding joints
[NASA-CASE-MFS-13046] c07 N71-19433

ARCHITECTURE

SUBJECT INDEX

Development of device to prevent high voltage arcing in electron beam welding
[NASA-CASE-XMP-08522] c15 N71-19486
Development of apparatus for automatically changing carriage speed of welding machine to obtain constant speed of torch along work surface
[NASA-CASE-XMP-07069] c15 N71-23815
Grain refinement control in TIG arc welding
[NASA-CASE-HSC-19095-1] c37 N75-19683

ARCHITECTURE

Development of construction block in form of container folded from flat sheet and filled with solid material for architectural purposes
[NASA-CASE-HSC-12233-2] c32 N73-13921

ARMS (ANATOMY)

Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
Orthotic arm joint --- for use in mechanical arms
[NASA-CASE-HFS-21611-1] c54 N75-12616
An improved controller arm for a remotely related slave arm
[NASA-CASE-ARC-11052-1] c54 N77-30751

ARMATURES

Design and development of electric motor with stationary field and armature windings which operates on direct current
[NASA-CASE-IGS-05290] c09 N71-25999
Solenoid valve including guide for armature and valve member
[NASA-CASE-GSC-10607-1] c15 N72-20442
Direct current motor including stationary field windings and stationary armature winding
[NASA-CASE-IGS-07805] c15 N72-33476

AROMATIC COMPOUNDS

Aromatic polyimide preparation --- with low softening temperatures
[NASA-CASE-LAR-11372-1] c27 N74-19772
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-1] c23 N78-22154
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-2] c23 N78-22155
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N78-31232
Process for preparing thermoplastic aromatic polyimides
[NASA-CASE-LAR-11828-1] c27 N78-32261

ARRAYS

Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N79-14272

ARTERIES

Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566

ARTIFICIAL CLOUDS

Chemical system for releasing barium to create ion clouds in upper atmosphere and interplanetary space
[NASA-CASE-LAR-10670-1] c06 N73-30097

ARTIFICIAL GRAVITY

Artificial gravity system for simulating self-locomotion capability of astronauts in rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776
Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XMP-02595] c31 N71-21881
Spacecraft with artificial gravity and earthlike atmosphere
[NASA-CASE-LEW-11101-1] c31 N73-32750

ARTIFICIAL SATELLITES

Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324

ASBESTOS

Reconstituted asbestos matrix --- for use in fuel or electrolysis cells
[NASA-CASE-HSC-12568-1] c24 N76-14204

ASHES

Fluidized bed coal combustion reactor
[NASA-CASE-NPO-14273-1] c37 N79-14388

ASPECT RATIO

Variable aspect ratio and variable sweep delta wing planforms for supersonic aircraft
[NASA-CASE-XLA-00221] c02 N70-33266
Supersonic aircraft configuration providing for variable aspect ratio and variable sweep wings
[NASA-CASE-XLA-00166] c02 N70-34178
Supersonic aircraft variable sweep wing planform for varying aspect ratio
[NASA-CASE-XLA-00350] c02 N70-38011

ASPHALT

Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil
[NASA-CASE-NPO-8835] c27 N78-33228

ASSAYING

Rapid, quantitative determination of bacteria in water
[NASA-CASE-GSC-12158-1] c51 N78-22585
Method and apparatus for continuous measurement of bacterial content of aqueous samples
[NASA-CASE-HSC-16779-1] c51 N78-22586

ASSEMBLIES

Multiple Belleville spring assembly with even load distribution
[NASA-CASE-XMP-00840] c15 N70-38225
Bearing seat usable in a gas turbine engine
[NASA-CASE-LEW-12477-1] c37 N77-32501

ASTRONAUT LOCOMOTION

Artificial gravity system for simulating self-locomotion capability of astronauts in rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776
Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194
Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195
Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161
Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque
[NASA-CASE-XMS-09637-1] c05 N71-24730
Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619
Walking boot assembly
[NASA-CASE-ARC-11101-1] c54 N78-17675
Spacesuit mobility joints
[NASA-CASE-ARC-11058-2] c54 N78-18763

ASTRONAUT MANEUVERING EQUIPMENT

Hand-held maneuvering unit for propulsion and attitude control of astronauts in zero or reduced gravity environment
[NASA-CASE-XMS-05304] c05 N71-12336
Space environmental work simulator with portions of space suit mounted to vacuum chamber wall
[NASA-CASE-XMP-07488] c11 N71-18773
Lightweight propulsion unit for movement of personnel and equipment across lunar surface
[NASA-CASE-HFS-20130] c28 N71-27585

ASTRONAUT PERFORMANCE

Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619
Spacesuit mobility joints
[NASA-CASE-ARC-11058-1] c54 N78-31735

ASTRONAUT TRAINING

Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
Low and zero gravity simulator for astronaut training
[NASA-CASE-HFS-10555] c11 N71-19494
Apparatus for training astronaut crews to perform on simulated lunar surface under conditions of lunar gravity
[NASA-CASE-XMS-04798] c11 N71-21474

ASTRONAUTS

Three transceiver lunar emergency system to relay voice communication of astronaut

SUBJECT INDEX

ATTITUDE CONTROL

- [NASA-CASE-MPS-21042] c07 N72-25171
Manual actuator --- for spacecraft exercising machines
- [NASA-CASE-MPS-21481-1] c37 N74-18127
ASTRONAVIGATION
Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-INP-09572] c14 N71-15621
- ASTRONOMICAL PHOTOGRAPHY**
Cameras for photographing meteors in selected sky area
[NASA-CASE-LAR-10226-1] c14 N73-19419
- ASTRONOMICAL TELESCOPES**
Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-HSC-10966] c14 N71-19568
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
Star image motion compensator using telescope for maintaining fixed images
[NASA-CASE-LAR-10523-1] c14 N72-22444
Anastigmatic three-mirror telescope
[NASA-CASE-MPS-23675-1] c89 N79-10969
- ATMOSPHERIC COMPOSITION**
Design and development of two types of atmosphere sampling chambers
[NASA-CASE-NPO-11373] c13 N72-25323
Development and operation of apparatus for sampling particulates in gases in upper atmosphere
[NASA-CASE-HQN-10037-1] c14 N73-27376
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284
- ATMOSPHERIC ENTRY**
Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-IAC-02058] c02 N71-16087
Development of method for measuring electron density gradients of plasma sheath around space vehicle during atmospheric entry
[NASA-CASE-XLA-06232] c25 N71-20563
Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015
- ATMOSPHERIC ENTRY SIMULATION**
Crossed-field plasma accelerator for laboratory simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267
Wind tunnel method for simulating flow fields around blunt vehicles entering planetary atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436
- ATMOSPHERIC PHYSICS**
Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-RSC-10730-1] c14 N73-32318
- ATMOSPHERIC PRESSURE**
A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control
[NASA-CASE-NPO-14474-1] c26 N78-27255
- ATMOSPHERIC RADIATION**
Radiometric measuring system for solar activity and atmospheric attenuation and emission
[NASA-CASE-ERC-10276] c14 N73-26432
- ATMOSPHERIC SCATTERING**
Clear air turbulence detector
[NASA-CASE-MPS-21244-1] c36 N75-15028
- ATMOSPHERIC TURBULENCE**
Passive optical wind and turbulence remote detection system
[NASA-CASE-INP-14032] c20 N71-16340
Focused laser Doppler velocimeter
[NASA-CASE-MPS-23178-1] c35 N77-10493
- ATOM CONCENTRATION**
Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength
[NASA-CASE-LEW-12081-2] c72 N78-19907
- ATOMIZERS**
Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
- [NASA-CASE-NPO-10467] c23 N71-26654
ATS
Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978
- ATTACHMENT**
Silicon carbide backward diode with coated lead attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150
- ATTENUATORS**
Rotary vane attenuator with two stators and intermediary rotor, using resistive and orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420
A signal attenuator --- pulse rate sensor circuits
[NASA-CASE-ERC-11012-1] c33 N78-28339
- ATTITUDE (INCLINATION)**
Analog spatial maneuver computer with three output angles for obtaining desired spatial attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172
Spacecraft attitude sensing system design with narrow field of view sensor rotating about spacecraft x-y axis
[NASA-CASE-GSC-10890-1] c21 N73-30640
Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391
- ATTITUDE CONTROL**
Visual target luminaires for retrofire attitude control
[NASA-CASE-XMS-12158-1] c31 N69-27499
Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-IFR-00181] c21 N70-33279
Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
Attitude and propellant flow control system for liquid propellant rocket vehicles
[NASA-CASE-INP-00185] c21 N70-34539
Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-INP-00465] c21 N70-35395
Attitude control device for space vehicles
[NASA-CASE-INP-00294] c21 N70-36938
Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners
[NASA-CASE-XLA-00281] c21 N70-36943
Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-INP-00676] c15 N70-38996
Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-IAC-01404] c05 N70-41581
Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-XMS-02977] c11 N71-10746
Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-INP-03914] c21 N71-10771
Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
Development of spacecraft experiment pointing and attitude control system
[NASA-CASE-XLA-05464] c21 N71-14132
Development of attitude control system for spacecraft orientation
[NASA-CASE-XGS-04393] c21 N71-14159
System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582
Drive mechanism for operating reactance attitude control system for aerospace bodies
[NASA-CASE-INP-01598] c21 N71-15583
Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
Remote control device operated by movement of finger tips for manual control of spacecraft attitude
[NASA-CASE-XAC-02405] c09 N71-16089

ATTITUDE GYROs

Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629

Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880

Development of attitude control system for sounding rocket stabilization during ballistic phase of flight
[NASA-CASE-IGS-01654] c31 N71-24750

Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160

Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089

Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position
[NASA-CASE-NPO-13044-1] c35 N74-15094

Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951

A pitch attitude stabilization system utilizing engine pressure ratio feedback signals
[NASA-CASE-LAR-12562-1] c08 N79-20135

ATTITUDE GYROs

Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395

Attitude control system
[NASA-CASE-NPS-22787-1] c15 N77-10113

ATTITUDE INDICATORS

Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude
[NASA-CASE-XNP-00438] c21 N70-35089

Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255

Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268

Aircraft horizon and vertical indicator
[NASA-CASE-ERC-10392] c21 N73-14692

Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089

Translatory shock absorber for attitude sensors
[NASA-CASE-NPS-22905-1] c19 N76-22284

Air speed and attitude probe
[NASA-CASE-FRC-11009-1] c06 N78-25088

ATTITUDE STABILITY

Dynamic precession damping of spin-stabilized vehicles by using rate gyroscope and angular accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295

Attitude stabilizer for nonguided missile or vehicle with respect to trajectory
[NASA-CASE-ARC-10134] c30 N72-17873

AUDIO EQUIPMENT

Audio equipment for removing impulse noise from audio signals
[NASA-CASE-NPO-11631] c10 N73-12244

AUDIO FREQUENCIES

High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430

Audio frequency analysis circuit for determining, displaying, and recording frequency of sweeping audio frequency signal
[NASA-CASE-NPO-11147] c14 N72-27408

AUDITORY DEFECTS

Hearing aid malfunction detection system
[NASA-CASE-MS-C-14916-1] c33 N78-10375

AUDITORY PERCEPTION

Auditory display for the blind
[NASA-CASE-HQB-10832-1] c71 N74-21014

AUDITORY SIGNALS

Audio signal processing system for noise surge elimination at low amplitude audio input
[NASA-CASE-MS-C-12223-1] c07 N71-26181

Audio equipment for removing impulse noise from audio signals
[NASA-CASE-NPO-11631] c10 N73-12244

SUBJECT INDEX

AUDITORY STIMULI

Auditory display for the blind
[NASA-CASE-HQB-10832-1] c71 N74-21014

AUSTENITIC STAINLESS STEELS

Intermetallic chromium containing nickel aluminide for high temperature corrosion protection of stainless steels
[NASA-CASE-LEW-11267-1] c17 N73-32414

Device for measuring the ferrite content in an austenitic stainless-steel weld
[NASA-CASE-NPS-22907-1] c26 N76-18257

AUTOCORRELATION

Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503

Circuitry for developing autocorrelation function continuously within signal receiving period
[NASA-CASE-XNP-00746] c07 N71-21476

AUTOMATIC CONTROL

Automatic control of voltage supply to direct current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987

Electro-optical/computer system for aligning large structural members and maintaining correct position
[NASA-CASE-XNP-02029] c14 N70-41955

Pulsed energy power system for application of combustible gases to turbine controlling ac voltage generator
[NASA-CASE-MS-C-13112] c03 N71-11057

Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545

Computer controlled apparatus for maintaining welding torch angle and velocity during seam tracking
[NASA-CASE-XNP-03287] c15 N71-15607

Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573

Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-MS-C-10966] c14 N71-19568

Welding torch with automatic speed controller using speed sensing wheel and closed servo system
[NASA-CASE-XNP-01730] c15 N71-23050

Microwave waveguide switch with rotor position control
[NASA-CASE-XNP-06507] c09 N71-23548

Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042

Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276

Automatically charging battery of electric storage cells
[NASA-CASE-XNP-04758] c03 N71-24605

Electric motor control system with pulse width modulation for providing automatic null seeking servo
[NASA-CASE-XNP-05195] c10 N71-24861

Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182

Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244

Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-XNP-09451] c06 N71-26754

Automatic control device for regulating inlet water temperature of liquid cooled spacesuit
[NASA-CASE-MS-C-13917-1] c05 N72-15098

Optimal control system for automatic speed regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244

Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246

Automatic shunting of ion thruster magnetic field when thruster is not operating
[NASA-CASE-LEW-10835-1] c28 N72-22771

- Automatic temperature control for liquid cooled space suit
[NASA-CASE-ARC-10599-1] c05 N73-26071
- Speed control system for dc motor equipped with brushless Hall effect device
[NASA-CASE-MFS-20207-1] c09 N73-32107
- Programmable physiological infusion
[NASA-CASE-ARC-10447-1] c52 N74-22771
- Automatically operable self-leveling load table
[NASA-CASE-MFS-22039-1] c09 N75-12968
- Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014
- Traffic survey system --- using optical scanners
[NASA-CASE-MFS-22631-1] c66 N76-19888
- Automatic visual inspection system for microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396
- Automatic fluid dispenser
[NASA-CASE-ARC-10820-1] c35 N78-19466
- Module failure isolation circuit for paralleled inverters
[NASA-CASE-NPO-14000-1] c33 N78-22299
- A method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952
- Method for producing solar energy panels by automation
[NASA-CASE-LEW-12541-1] c44 N78-25529
- A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-3] c44 N78-25560
- AUTOMATIC CONTROL VALVES**
- Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925
- Describing metal valve pintle with encapsulated elastomeric body
[NASA-CASE-MSC-12116-1] c15 N71-17648
- Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-XNP-09704] c12 N71-18615
- Reliability of automatic refilling valving device for cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453
- Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050
- Iodine generator for reclaimed water purification
[NASA-CASE-MSC-14632-1] c54 N78-14784
- AUTOMATIC FREQUENCY CONTROL**
- System for phase locking onto carrier frequency signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543
- Audio signal processing system for noise surge elimination at low amplitude audio input
[NASA-CASE-MSC-12223-1] c07 N71-26181
- Automatic frequency control device for providing frequency reference for voltage controlled oscillator
[NASA-CASE-KSC-10393] c09 N72-21247
- Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ARC-10264-1] c09 N73-20231
- AUTOMATIC GAIN CONTROL**
- Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330
- Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986
- Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ARC-10264-1] c09 N73-20231
- AUTOMATIC TEST EQUIPMENT**
- Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
[NASA-CASE-ARC-10329-1] c05 N73-26072
- Automatic microbial transfer device
[NASA-CASE-LAR-11354-1] c35 N75-27330
- Visual examination apparatus
[NASA-CASE-RE-ARC-10329-2] c52 N76-30793
- Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N79-12694
- AUTOMATION**
- Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480
- Spray coating apparatus having a rotatable workpiece holder
[NASA-CASE-ARC-11110-1] c37 N78-32434
- AUTOMOBILE ENGINES**
- Automotive gas turbine fuel control
[NASA-CASE-LEW-12785-1] c37 N78-24545
- AUTOMOBILE FUELS**
- Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700
- AUXILIARY POWER SOURCES**
- Auxiliary power system for activity cooled aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332
- Independent power generator
[NASA-CASE-LAR-11208-1] c44 N78-32539
- AXES (REFERENCE LINES)**
- Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-22992
- Mechanism for restraining universal joints to prevent separation while allowing bending, angulation, and lateral offset in any position about axis
[NASA-CASE-XNP-02278] c15 N71-28951
- AXES OF ROTATION**
- Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-XFB-00181] c21 N70-33279
- Proportional controller for regulating aircraft or spacecraft motion about three axes
[NASA-CASE-XAC-03392] c03 N70-41954
- Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-XHF-00684] c21 N71-21688
- Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255
- AXIAL COMPRESSION LOADS**
- Development and characteristics of device for indicating and recording magnitude of force applied in axial direction
[NASA-CASE-MSC-15626-1] c14 N72-25411
- AXIAL FLOW TURBINES**
- Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLE-00170] c15 N70-36412
- Multistage, multiple reentry, single rotor axial flow turbine
[NASA-CASE-XLE-00085] c28 N70-39895
- Method and turbine for extracting kinetic energy from a stream of two-phase fluid
[NASA-CASE-NPO-14130-1] c34 N79-20335
- AXIAL LOADS**
- Ball locking device which releases in response to small forces when subjected to high axial loads
[NASA-CASE-XHF-01371] c15 N70-41829
- Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511
- AXIAL STRESS**
- Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459
- Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511
- AZIMUTH**
- Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MFS-14017] c14 N71-26627
- Long range laser traversing system
[NASA-CASE-GSC-11262-1] c36 N74-21091
- Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056
- AZINES**
- Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XHF-08656] c06 N71-11242
- Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
- Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

AZO COMPOUNDS

Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby
[NASA-CASE-LEW-12053-2] c23 N77-32244

AZO COMPOUNDS

Holding process for imidazopyrrolone polymers
[NASA-CASE-LAR-10547-1] c31 N74-13177

B

BACKFIRE

Microstrip back-fire antenna
[NASA-CASE-LAR-12172-1] c32 N78-29310

BACKGROUND NOISE

Electronic background suppression field scanning sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N69-39980

BACKGROUND RADIATION

Method and apparatus for background signal reduction in opto-acoustic absorption measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411

BACKSCATTERING

Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678

Hossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091

A system for detecting substructure microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556

BACKUPS

Flexible backup bar for welding awkwardly shaped structures
[NASA-CASE-XMP-00722] c15 N70-40204

Reliable electrical element heater using plural wire system and backup power sources
[NASA-CASE-MPS-21462-1] c33 N74-14935

BACTERIA

Decontamination of petroleum products with honey
[NASA-CASE-XMP-03835] c06 N71-23499

Portable tester for monitoring bacterial contamination by adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N72-25413

Enzymatic luminescent bioassay method for determining bacterial levels in urine
[NASA-CASE-GSC-11092-2] c04 N73-27052

Lyophilized spore dispenser
[NASA-CASE-LAR-10544-1] c37 N74-13178

Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-29891

Method and apparatus for eliminating luminol interference material
[NASA-CASE-MSC-16260-1] c51 N78-18674

Rapid, quantitative determination of bacteria in water
[NASA-CASE-GSC-12158-1] c51 N78-22585

Method and apparatus for continuous measurement of bacterial content of aqueous samples
[NASA-CASE-MSC-16779-1] c51 N78-22586

Determination of antimicrobial susceptibilities on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750

BACTERIOLOGY

Detection of bacteria in biological fluids and foods
[NASA-CASE-GSC-11533-1] c14 N73-13435

Application of luciferase assay for ATP to antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794

Automated single-slide staining device
[NASA-CASE-LAR-11649-1] c51 N77-27677

BAFFLES

Light radiation direction indicator with baffle of two parallel grids
[NASA-CASE-XMP-03930] c14 N69-24331

Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604

Flexible ring slosh damping baffle for spacecraft fuel tank
[NASA-CASE-LAR-10317-1] c32 N71-16103

Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106

SUBJECT INDEX

Floating baffle for tank drain
[NASA-CASE-KSC-10639] c15 N73-26472

System for the measurement of ultra-low stray light levels --- determining the adequacy of large space telescope systems
[NASA-CASE-MPS-23513-1] c74 N79-11865

BAGS

Fecal waste disposal container
[NASA-CASE-XMS-06761] c05 N69-23192

Gas diffusion liquid storage bag and method of use for storing blood
[NASA-CASE-NPO-13930-1] c52 N79-14749

BALANCE

Thermoprotective device for balances
[NASA-CASE-XAC-00648] c14 N70-40400

Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-MPS-21556-1] c35 N74-26945

BALANCING

Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545

Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-NPO-40808] c15 N71-27432

Static force balancing system attached to lifting body
[NASA-CASE-LAR-10348-1] c11 N73-12264

BALL BEARINGS

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136

Method for reducing mass of ball bearings for long life operation at high speed
[NASA-CASE-LEW-10856-1] c15 N72-22490

Low mass rolling element bearing assembly
[NASA-CASE-LEW-11087-1] c15 N73-30458

Hollow rolling element bearings
[NASA-CASE-LEW-11087-3] c37 N74-21064

Drilled ball bearing with a one piece anti-tipping cage assembly
[NASA-CASE-LEW-11925-1] c37 N75-31446

Spherical bearing --- to reduce vibration effects
[NASA-CASE-MPS-23447-1] c37 N79-11404

BALLAST (MASS)

Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
[NASA-CASE-MSC-12393-1] c02 N73-26006

BALLASTS (IMPEDANCES)

Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318

BALLISTICS

Fiber modified polyurethane foam for ballistic protection
[NASA-CASE-ARC-10714-1] c27 N76-15310

BALLOON SOUNDING

Apparatus for controlling the temperature of balloon-borne equipment
[NASA-CASE-GSC-11620-1] c34 N74-23039

BALLOONS

Development and characteristics of hot air balloon deceleration and recovery system
[NASA-CASE-XLA-06824-2] c02 N71-11037

Inflation system for balloon type satellites
[NASA-CASE-XGS-03351] c31 N71-16081

System for controlling torque buildup in suspension of gondola connected to balloon by parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N73-13008

BALLS

Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XFR-04104] c03 N70-42073

A quartz ball valve
[NASA-CASE-NPO-14473-1] c37 N79-10427

BANDPASS FILTERS

Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323

Phase locked demodulator with bandwidth switching amplifier circuit
[NASA-CASE-XMP-01107] c10 N71-28859

Signal to noise ratio determination circuit using bandpass limiter
[NASA-CASE-GSC-11239-1] c10 N73-25241

Selective bandpass resonators using bandstop resonator pairs for microwave frequency

SUBJECT INDEX

BEARINGS

operation
[NASA-CASE-GSC-10990-1] c09 N73-26195
Dichroic plate --- as bandpass filters
[NASA-CASE-NPO-13506-1] c35 N76-15435
Notch filter
[NASA-CASE-NPS-23303-1] c32 N77-18307
Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154

BANDWIDTH
Improvements in receiver of narrow bandwidth television system
[NASA-CASE-IMS-06740-1] c07 N71-26579
Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
[NASA-CASE-ABC-10264-1] c09 N73-20231
Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372
Independent gain and bandwidth control of a traveling wave maser
[NASA-CASE-NPO-13801-1] c36 N78-18410
A method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952
Dual band combiner for horn antenna
[NASA-CASE-NPO-14519-1] c32 N79-17068

BARIUM
Chemical system for releasing barium to create ion clouds in upper atmosphere and interplanetary space
[NASA-CASE-LAR-10670-1] c06 N73-30097

BARIUM COMPOUNDS
Improved cathode containing barium carbonate block and heated tungsten screen for electron bombardment ion thruster
[NASA-CASE-XLE-07087] c06 N69-39889

BARIUM FLUORIDES
Production of barium fluoride-calcium fluoride composite lubricant for bearings or seals
[NASA-CASE-XLE-08511-2] c18 N71-16105

BARIUM ION CLOUDS
Rocket having barium release system to create ion clouds in the upper atmosphere
[NASA-CASE-LAR-10670-2] c15 N74-27360

BARIUM TITANATES
Memory device employing semiconductor and ferroelectric properties of single crystal barium titanate
[NASA-CASE-ERC-10307] c08 N72-21198

BAROMETERS
Oceanic wave measurement system
[NASA-CASE-NPS-23862-1] c48 N79-10689

BARRIERS
Short range laser obstacle detector --- for surface vehicles using laser diode array
[NASA-CASE-NPO-11856-1] c36 N74-15145

BASIS (CHEMICAL)
Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
[NASA-CASE-XLA-01995] c18 N71-23047

BATTERY CHARGERS
Battery charging system with cell to cell voltage balance
[NASA-CASE-XGS-05432] c03 N71-19438
Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
[NASA-CASE-XGS-05434] c03 N71-20491
Development and characteristics of battery charging circuits with coulometer for control of available current
[NASA-CASE-GSC-10487-1] c03 N71-24719
Method and apparatus for conditioning of nickel-cadmium batteries
[NASA-CASE-NPS-23270-1] c44 N78-25531

BAYARD-ALPERT IONIZATION GAGES
Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure
[NASA-CASE-XLA-07424] c14 N71-18482

BEADS
Rotary bead dropper and selector for testing micrometeorite transducers
[NASA-CASE-XGS-03304] c09 N71-22988

BEAM LEADS
Integrated circuit package with lead structure and method of preparing the same
[NASA-CASE-NPS-21374-1] c33 N74-12951

BEAM SPLITTERS

Optical range finder using reflective first surfaces mirror and transmitting beam splitter
[NASA-CASE-NSC-12105-1] c14 N72-21409
Laser extensometer
[NASA-CASE-NPS-19259-1] c36 N78-14380
Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395
Method of forming a sharp edge on an optical device --- beam splitters for Solar Maximum Missions spectropolarimeter
[NASA-CASE-GSC-12348-1] c74 N78-29902
Method and apparatus for splitting a beam of energy --- optical communication
[NASA-CASE-GSC-12083-1] c73 N78-32848

BEAM SWITCHING

Using electron beam switching for brushless motor commutation
[NASA-CASE-XGS-01451] c09 N71-10677
Antenna array at focal plane of reflector with coupling network for beam switching
[NASA-CASE-GSC-10220-1] c07 N71-27233
Dish antenna having switchable beamwidth --- with truncated concave ellipsoid subreflector
[NASA-CASE-GSC-11760-1] c33 N75-19516
Single frequency, two feed dish antenna having switchable beamwidth
[NASA-CASE-GSC-11968-1] c32 N76-15329
Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

BEAM WAVEGUIDES

Laser machining device with dielectric functioning as beam waveguide for mechanical and medical applications
[NASA-CASE-HQN-10541-2] c15 N71-27135
Optical communication system with gas filled waveguide for laser beam transmission
[NASA-CASE-HQN-10541-4] c16 N71-27183
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125

BEAMS (RADIATION)

Method and means for recording and reconstructing holograms without use of reference beam
[NASA-CASE-ERC-10020] c16 N71-26154
Method and system for transmitting and distributing optical frequency radiation
[NASA-CASE-HQN-10541-3] c23 N72-23695

BEAMS (SUPPORTS)

Tow bar for aircraft
[NASA-CASE-ERC-11022-1] c09 N79-10069

BEARING (DIRECTION)

Light radiation direction indicator with baffle of two parallel grids
[NASA-CASE-NXP-03930] c14 N69-24331
Solar radiation direction detector and device for compensating degradation of photocells
[NASA-CASE-XLA-00183] c14 N70-40239
Michelson interferometer with photodetector for optical direction sensing
[NASA-CASE-NPO-10320] c14 N71-17655
Omnidirectional liquid filled accelerometer design with liquid and housing temperature compensation
[NASA-CASE-HQN-10780] c14 N71-30265
Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056

BEARINGS

Metal alloy bearing materials for space applications
[NASA-CASE-XLE-05033] c15 N71-23810
Low friction bearing and lock mechanism for two-axis gimbal carrying satellite payload
[NASA-CASE-GSC-10556-1] c31 N71-26537
Measuring device for bearing preload using spring washers
[NASA-CASE-NPS-20434] c11 N72-25288
Magnetic bearing --- for supplying magnetic fluxes
[NASA-CASE-GSC-11079-1] c37 N75-18574
Magnetic bearing system
[NASA-CASE-GSC-11978-1] c37 N77-17464
Hydrostatic bearing support
[NASA-CASE-LBW-11158-1] c37 N77-28486
Deformable bearing seat
[NASA-CASE-LBW-12527-1] c37 N77-32500
Bearing seat usable in a gas turbine engine
[NASA-CASE-LBW-12477-1] c37 N77-32501

BEDS (PROCESS ENGINEERING)

SUBJECT INDEX

An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas
[NASA-CASE-NPO-14395-1] c37 N79-12446

BEDS (PROCESS ENGINEERING)
Catalyst bed element removing tool
[NASA-CASE-IFR-00811] c15 N70-36901

BEER LAW
Multichannel photoionization chamber for measuring absorption, photoionization yield, and coefficients of gases
[NASA-CASE-ERC-10044-1] c14 N71-27090

BEES
Decontamination of petroleum products with honey
[NASA-CASE-INP-03835] c06 N71-23499

BELLOWS
Compact bellows spirometer for high speed and high altitude space travel
[NASA-CASE-XAR-01547] c05 N69-21473
Electrical connection for printed circuits on common board, using bellows principle in rivet
[NASA-CASE-INP-05082] c15 N70-41960
Flexible bellows joint shielding sleeve for propellant transfer pipelines
[NASA-CASE-INP-01855] c15 N71-28937
Internally supported flexible duct joint --- device for conducting fluids in high pressure systems
[NASA-CASE-MFS-19193-1] c37 N75-19686

BELTS
Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917

BENDING
Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-INP-09422] c07 N71-19436
Development of systems for automatically and continually suppressing or attenuating bending motion in elastic bodies
[NASA-CASE-XAC-05632] c32 N71-23971
Elbow forming in jacketed pipes while maintaining separation between core shape and jacket pipes
[NASA-CASE-INP-10475] c15 N71-24679
Device for bending metal ribbon or wire
[NASA-CASE-XLA-05966] c15 N72-12408

BENDING DIAGRAMS
Charged particle analyzer with periodically varying voltage applied across electrostatic deflection members
[NASA-CASE-XAC-05506-1] c24 N71-16095

BENDING FATIGUE
Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere
[NASA-CASE-XLB-01300] c15 N70-41993
Cryostat for flexure fatigue testing of composite materials
[NASA-CASE-INP-02964] c14 N71-17659

BENDING MOMENTS
Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-INP-03198] c30 N70-40353

BENDING VIBRATION
Mercury filled pendulum damper for controlling bending vibration induced by wind effects
[NASA-CASE-XAR-10274-1] c14 N71-17626

BENZENE
Para-benzoguinone dioxine and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ABC-10304-1] c18 N73-26572

BERYLLIUM ALLOYS
Development of fluoride coating to prevent oxidation of beryllium surfaces at elevated temperatures
[NASA-CASE-LEW-10327] c17 N71-33408

BERYLLIUM HYDRIDES
Inhibited solid propellant composition containing beryllium hydride
[NASA-CASE-NPO-10866-1] c28 N79-14228

BERYLLIUM OXIDES
High temperature beryllium oxide capacitor
[NASA-CASE-LEW-11938-1] c33 N76-15373

BISMUTHS
Nonmagnetic thermal motor for magnetometer movement

[NASA-CASE-XAR-03786] c09 N69-21313
Design and development of linear actuator based on bimetallic spring expansion
[NASA-CASE-NPO-10637] c15 N72-12409
Application of spiral, bimetallic strip to create circular motion on mechanical shaft by changing strip temperature
[NASA-CASE-NPO-11283] c09 N72-25260
Development of thermal compensating structure which maintains uniform length with changes in temperature
[NASA-CASE-MFS-20433] c15 N72-28496
Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids
[NASA-CASE-ABC-10441-1] c35 N74-15126
Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12050-1] c35 N77-32454

BINARY CODES
Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773
Logic circuit for generating multibit binary code word in parallel
[NASA-CASE-INP-04623] c10 N71-26103
Design and development of encoder/decoder system to generate binary code which is function of outputs of plurality of bistable elements
[NASA-CASE-NPO-10342] c10 N71-33407
Binary coded sequential acquisition ranging system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209
Binary concatenated coding system
[NASA-CASE-MSC-14082-1] c60 N76-23850
Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289
Pseudo noise code and data transmission method and apparatus
[NASA-CASE-GSC-12017-1] c32 N77-30308
Binary to binary coded decimal converter
[NASA-CASE-GSC-12044-1] c60 N78-17691
Apparatus and method for stabilized phase detection for binary signal tracking loops
[NASA-CASE-MSC-16461-1] c33 N79-11313

BINARY DATA
Nondestructive interrogating and state changing circuit for binary magnetic storage elements
[NASA-CASE-XGS-00174] c08 N70-34743
Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-XGS-04766] c08 N71-18602
Describing circuit for obtaining sum of squares of numbers
[NASA-CASE-XGS-04765] c08 N71-18693
Digital synchronizer for extracting binary data in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613
Differential phase shift keyed communication system
[NASA-CASE-MSC-14065-1] c32 N74-26654
Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems
[NASA-CASE-GSC-11743-1] c32 N75-24981
Binary to binary coded decimal converter
[NASA-CASE-GSC-12044-1] c60 N78-17691

BINARY DIGITS
Logarithmic converter for compressing 19-digit binary input number to 8-digit output
[NASA-CASE-XLA-00471] c08 N70-34778
Circuit diagram and operation of full binary adder
[NASA-CASE-XGS-00689] c08 N70-34787
Binary number sorter for arranging numbers in order of magnitude
[NASA-CASE-NPO-10112] c08 N71-12502
Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-INP-05415] c08 N71-12505
Cathode ray tube system for displaying ones and zeros in binary wave train
[NASA-CASE-XGS-04987] c08 N71-20571
Characteristics of comparator circuits for comparison of binary numbers in information processing system
[NASA-CASE-INP-04819] c08 N71-23295
Digital converter for scaling binary number to binary coded decimal number of higher multiple

SUBJECT INDEX

BIOLUMINESCENCE

- [NASA-CASE-KSC-10595] c08 N73-12176
Family of n -ary linear feedback shift register
with binary logic
[NASA-CASE-NPO-11868] c10 N73-20254
Binary concatenated coding system
[NASA-CASE-MSC-14082-1] c60 N76-23850
- BINARY FLUIDS**
Flow measuring apparatus
[NASA-CASE-LEW-12078-1] c35 N75-30503
- BINARY TO DECIMAL CONVERTERS**
Binary to binary-coded decimal converter using
single set of logic circuits notwithstanding
number of shift register decades
[NASA-CASE-XNP-00432] c08 N70-35423
Design and operation of high speed binary to
decimal conversion system
[NASA-CASE-XGS-01230] c08 N71-19544
Binary to decimal decoder logic circuit design
with feedback control and display device
[NASA-CASE-IXS-06167] c08 N71-24890
High speed direct binary to binary coded decimal
converter for use in PCM telemetry systems
[NASA-CASE-KSC-10326] c08 N72-21197
Binary to binary coded decimal converter
[NASA-CASE-GSC-12044-1] c60 N78-17691
- BINDERS (MATERIALS)**
Bonded solid lubricant coatings of calcium
fluoride and binder for high temperature
stability
[NASA-CASE-XMS-00259] c18 N70-36400
Brazing alloy binder
[NASA-CASE-XNP-05868] c26 N75-27125
Alkali-metal silicate binders and methods of
manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217
Recovery of aluminum and binder from composite
propellants
[NASA-CASE-NPO-14110-1] c28 N79-10225
- BINOCLULARS**
Binocular device for displaying numerical
information in field of view
[NASA-CASE-LAR-11782-1] c74 N77-20882
- BIOASSAY**
Spectrophotofluorometer with 3-dimensional
display to identify fluorescence spectra of
carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-XGS-01231] c14 N70-41676
Bioassay of flavin coenzymes
[NASA-CASE-GSC-10565-1] c06 N72-25149
Enzymatic luminescent bioassay method for
determining bacterial levels in urine
[NASA-CASE-GSC-11092-2] c04 N73-27052
Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844
Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123
Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-29891
Method and apparatus for eliminating luminol
interference material
[NASA-CASE-MSC-16260-1] c51 N78-18674
Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N79-12694
Determination of antimicrobial susceptibilities
on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750
- BIOELECTRIC POTENTIAL**
Electrochemically reversible silver-silver
chloride electrode for detecting bioelectric
potential differences generated by human
muscles and organs
[NASA-CASE-XMS-02872] c05 N69-21925
Manufacturing process for making perspiration
resistant-stress resistant biopotential
electrode
[NASA-CASE-MSC-90153-2] c05 N72-25120
Process for control of cell division
[NASA-CASE-LAR-10773-3] c51 N77-25769
- BIOELECTRICITY**
Development and characteristics of electrodes in
which poisoning by organic molecules is
prevented by ion selective electrolytic
deposition of hydrophilic protein colloid
[NASA-CASE-XMS-04213-1] c09 N71-26002
- BIOENGINEERING**
Bio-isolated dc operational amplifier --- for
bioelectric measurements
[NASA-CASE-ARC-10596-1] c33 N74-21851
- Actuator device for artificial leg
[NASA-CASE-NFS-23225-1] c52 N77-14735
Percutaneous connector device
[NASA-CASE-KSC-10849-1] c52 N77-14738
A prosthesis coupling
[NASA-CASE-KSC-11069-1] c54 N78-22721
High temperature resistant cermet and ceramic
compositions
[NASA-CASE-NPO-13690-3] c27 N78-25219
Prosthetic urinary sphincter
[NASA-CASE-NFS-23717-1] c52 N79-14756
Improved subcutaneous electrode structure
[NASA-CASE-ARC-11117-1] c52 N79-15576
- BIOINSTRUMENTATION**
Temperature compensated solid state differential
amplifier with application in
bioinstrumentation circuits
[NASA-CASE-XAC-00435] c09 N70-35440
Electrode attached to helmets for detecting low
level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193
Characteristics of pressed disc electrode for
biological measurements
[NASA-CASE-XMS-04212-1] c05 N71-12346
Development of apparatus and method for
quantitatively measuring brain activity as
automatic indication of sleep state and level
of consciousness
[NASA-CASE-MSC-13282-1] c05 N71-24729
Development and characteristics of electrodes in
which poisoning by organic molecules is
prevented by ion selective electrolytic
deposition of hydrophilic protein colloid
[NASA-CASE-XMS-04213-1] c09 N71-26002
Ultrasonic biomedical measuring and recording
apparatus --- for recording motion of internal
organs such as heart valves
[NASA-CASE-ARC-10597-1] c52 N74-20726
Subminiature insertable force transducer ---
including a strain gage to measure forces in
muscles
[NASA-CASE-NPO-13423-1] c33 N75-31329
A logic-controlled occlusive cuff system
[NASA-CASE-MSC-14836-1] c52 N76-27839
Catheter tip force transducer for cardiovascular
research
[NASA-CASE-NPO-13643-1] c52 N76-25896
Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835
Thermistor holder for skin temperature
measurements
[NASA-CASE-ARC-10855-1] c52 N77-10780
EKG and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619
Induction powered biological radiosonde --- for
measuring intracranial pressure
[NASA-CASE-ARC-11120-1] c52 N77-23743
Magnetic electrical connectors for biomedical
percutaneous implants
[NASA-CASE-KSC-11030-1] c52 N77-25772
Corneal seal device
[NASA-CASE-LEW-12258-1] c52 N77-28716
Snap-in compressible biomedical electrode
[NASA-CASE-MSC-14623-1] c52 N77-28717
Method and apparatus for continuous measurement
of bacterial content of aqueous samples
[NASA-CASE-MSC-16779-1] c51 N78-22586
Method and automated apparatus for detecting
coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588
Water quality monitoring system
[NASA-CASE-MSC-16778-1] c51 N78-22589
Fluid sample collection and distribution system
[NASA-CASE-MSC-16841-1] c51 N78-22590
A signal attenuator --- pulse rate sensor circuits
[NASA-CASE-FRC-11012-1] c33 N78-28339
Subcutaneous channeling probe
[NASA-CASE-ARC-11091-1] c52 N79-11684
Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580
- BIOLOGICAL EFFECTS**
Biocontamination and particulate detection system
[NASA-CASE-NPO-13953-1] c51 N78-22587
- BIOLUMINESCENCE**
Detection instrument for light emitted from ATP
biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
Describing method for lyophilization of
luciferase containing mixtures for use in life

BIO MEDICAL DATA

SUBJECT INDEX

detection reactions
[NASA-CASE-XGS-05532] c06 N71-17705
Application of luciferase assay for ATP to
antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794
Rapid, quantitative determination of bacteria in
water
[NASA-CASE-GSC-12158-1] c51 N78-22585

BIO MEDICAL DATA
Silicon radiation detecting probe design for in
vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440

BIOMECHANICS
Characteristics of pressed disc electrode for
biological measurements
[NASA-CASE-XMS-04212-1] c05 N71-12346
Compressible electrolyte saturated sponge
electrode for biomedical applications
[NASA-CASE-HSC-13648] c05 N72-27103
Ultrasonic biomedical measuring and recording
apparatus --- for recording motion of internal
organs such as heart valves
[NASA-CASE-ARC-10597-1] c52 N74-20726
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566
Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835
Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580

BIOTELEMETRY
Biotelemetry apparatus with dual voltage
generators for implanting in animals
[NASA-CASE-XAC-05706] c05 N71-12342
Miniature multichannel biotelemetry system
[NASA-CASE-NPO-13065-1] c52 N74-26625
Medical subject monitoring systems ---
multichannel monitoring systems
[NASA-CASE-HSC-14180-1] c52 N76-14757
Accelerometer telemetry system
[NASA-CASE-ARC-10849-1] c17 N76-29347
Miniature ingestible telemeter devices to
measure deep-body temperature
[NASA-CASE-ARC-10583-1] c52 N76-29894

BIREFRINGENCE
Automatic polarimeter capable of measuring
transient birefringence changes in
electro-optic materials
[NASA-CASE-XNP-08883] c23 N71-16101

BISMUTH
Manganese bismuth films with narrow transfer
characteristics for Curie-point switching
[NASA-CASE-NPO-11336-1] c76 N79-16678

BISMUTH COMPOUNDS
Hall effect magnetometer
[NASA-CASE-LEW-11632-2] c35 N75-13213

BISTABLE CIRCUITS
Bistable multivibrator circuits operating at
high speed and low power dissipation
[NASA-CASE-XGS-00823] c10 N71-15910

BIT SYNCHRONIZATION
Telemetry data unit to form multibit words for
use between demodulator and computer
[NASA-CASE-XNP-09225] c09 N69-24333
Bit synchronization system using digital data
transition tracking phased locked loop
[NASA-CASE-NPO-10844] c07 N72-20140
Bit synchronization of PCM communications
signal, without separate synchronization
channel by digital correlation
[NASA-CASE-NPO-11302-1] c07 N73-13149
Method and apparatus for a single channel
digital communications system ---
synchronization of received PCM signal by
digital correlation with reference signal
[NASA-CASE-NPO-11302-2] c32 N74-10132

BINARY CODE
Encoders designed to generate comma free
biorthogonal Reed-Muller type code comprising
conversion of 64 6-bit words into 64 32-bit
data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917

BITS
Logic circuit for generating multibit binary
code word in parallel
[NASA-CASE-XNP-04623] c10 N71-26103
MOD 2 sequential function generator for multibit
sequence, with two-bit shift register for each
pair of bits
[NASA-CASE-NPO-10636] c08 N72-25210

Bit error rate measurement above and below bit
rate tracking threshold
[NASA-CASE-HSC-12743-1] c32 N79-1

BLACK BODY RADIATION
Development of black-body source calibration
furnace
[NASA-CASE-XLE-01399] c33 N71-11
Black body cavity radiometer with thermal
resistance wire bridge circuit
[NASA-CASE-XNP-08961] c14 N71-24
Black body radiometer design with temperature
sensing and cavity heat source cone winding
[NASA-CASE-XNP-09701] c14 N71-26
Black body radiometer having isothermally
surrounded cavity for ultraviolet, visible,
and infrared radiation
[NASA-CASE-NPO-10810] c14 N71-27

BLADDER
Prosthetic urinary sphincter
[NASA-CASE-NPS-23717-1] c52 N79-14

BLADE TIPS
Modification and improvement of turbine blades
for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33

BLADES
Impact absorbing blade mounts for variable pit
blades
[NASA-CASE-LEW-12313-1] c37 N78-10

BLADES (CUTTERS)
Piston in bore cutter for severing parachute
control lines and sealing cable hole to
prevent water leakage into load
[NASA-CASE-XMS-04072] c15 N70-42
Tissue macerating instrument
[NASA-CASE-LEW-12668-1] c52 N78-14

BLAST LOADS
Development of apparatus for detonating
explosive devices in order to determine force
generated and detonation propagation rate
[NASA-CASE-LAR-10800-1] c33 N72-27

BLOOD
Reduction of blood serum cholesterol
[NASA-CASE-NPO-12119-1] c52 N75-15
Gas diffusion liquid storage bag and method of
use for storing blood
[NASA-CASE-NPO-13930-1] c52 N79-14

BLOOD FLOW
A logic-controlled occlusive cuff system
[NASA-CASE-HSC-14836-1] c52 N76-27

BLOOD PRESSURE
Blood pressure measuring system for separately
recording dc and ac pressure signals of
Korotkoff sounds
[NASA-CASE-XMS-06061] c05 N71-23
Apparatus and method for processing Korotkov
sounds --- for blood pressure measurement
[NASA-CASE-HSC-13999-1] c52 N74-26
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27
Circuit for detecting initial systole and
diastolic notch --- for monitoring arterial
pressure
[NASA-CASE-LEW-11581-1] c54 N75-13

BLUFF BODIES
Bluff-shaped annular configuration for
supersonic decelerator for reentry vehicles
[NASA-CASE-XLE-00222] c02 N70-37

BLUNT BODIES
Wind tunnel method for simulating flow fields
around blunt vehicles entering planetary
atmospheres without involving high temperature
[NASA-CASE-LAR-11138] c12 N71-20

BODIES OF REVOLUTION
Conforming polisher for aspheric surfaces of
revolution with inflatable tube
[NASA-CASE-XGS-02884] c15 N71-22
Test fixture for measuring moment of inertia of
irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-225

BODY FLUIDS
Programmable physiological infusion
[NASA-CASE-ARC-10447-1] c52 N74-227
Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-296

BODY KINEMATICS
Space suit with improved waist and torso movement
[NASA-CASE-ARC-10275-1] c05 N72-220
An improved controller arm for a remotely
related slave arm

SUBJECT INDEX

BRAKES (FOR ARRESTING MOTION)

[NASA-CASE-ARC-11052-1] c54 N77-30751

BODY MEASUREMENT (BIOLOGY)

Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835

Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580

BODY TEMPERATURE

Thermoregulating with cooling flow pipe network for humans
[NASA-CASE-XMS-10269] c05 N71-24147

Miniature ingestible telemeter devices to measure deep-body temperature
[NASA-CASE-ARC-10583-1] c52 N76-29894

BODY VOLUME (BIOLOGY)

Whole body measurement systems --- for weightlessness simulation
[NASA-CASE-HSC-13972-1] c52 N74-10975

BODY-WING CONFIGURATIONS

Free wing assembly for an aircraft
[NASA-CASE-FRC-10092-1] c05 N79-12061

BOILERS

Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104

Shell-side liquid metal boiler employing tube and shell heat exchanger
[NASA-CASE-NPO-10831] c33 N72-20915

BOLOMETERS

High impedance alternating current sensing transformer device between two bolometers for measuring insertion loss of test component
[NASA-CASE-XMP-01193] c10 N71-16057

Thin film capacitive bolometer and capacitance temperature interchange sensor
[NASA-CASE-NPO-10607] c09 N71-27232

BOLTS

Patent data on gas actuated bolt disconnect assembly
[NASA-CASE-XLA-00326] c03 N70-34667

Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601

Gage for quality control of sealing surfaces of threaded boss
[NASA-CASE-XMP-04966] c14 N71-17658

Split nut and bolt separation device
[NASA-CASE-XNP-06914] c15 N71-21489

Device for securing together structural members with axially stretched bolt and nut
[NASA-CASE-GSC-11149-1] c15 N73-30457

BONDING

Silver chloride use in technique for fusion bonding of graphite to silver, glass, ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735

Bonded joint and method --- for reducing peak shear stress in adhesive bonds
[NASA-CASE-LAR-10900-1] c37 N74-23064

Bonding method in the manufacture of continuous regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts
[NASA-CASE-HSC-14182-1] c27 N76-14264

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

BONES

Ultrasonic bone densitometer
[NASA-CASE-MFS-20994-1] c35 N75-12271

Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-HSC-14276-1] c52 N77-14737

Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215

BOOMS (EQUIPMENT)

Unfolding boom assembly with knuckle joints for positioning equipment for spacecraft
[NASA-CASE-XGS-00938] c32 N70-41367

Collapsible antenna boom and coaxial transmission line having inflatable inner tube
[NASA-CASE-MFS-20068] c07 N71-27191

Extendable, self-deploying boom apparatus
[NASA-CASE-GSC-10566-1] c15 N72-18477

Design and characteristics of mechanically extended and telescoping boom on crane assembly
[NASA-CASE-NPO-11118] c03 N72-25021

BOOSTER RECOVERY

Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-XMP-00389] c31 N70-34176

Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit
[NASA-CASE-XMP-01973] c31 N70-41588

BOOSTER ROCKET ENGINES

Segmented back-up bar for butt welding large tubular structures such as rocket booster bodies or tanks
[NASA-CASE-XMP-00640] c15 N70-39924

Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit
[NASA-CASE-XMP-01973] c31 N70-41588

BOOTS (FOOTWEAR)

Walking boot assembly
[NASA-CASE-ARC-11101-1] c54 N78-17675

BORIDES

Cesium thermionic converters having improved electrodes
[NASA-CASE-LEW-12038-3] c44 N78-25555

BORING MACHINES

Automatic controlled drive mechanism for portable boring bar
[NASA-CASE-XLA-03661] c15 N71-33518

Borehole geological assessment
[NASA-CASE-NPO-14231-1] c46 N79-19521

BORON

Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential of field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329

BORON CARBIDES

Catalyst for increased growth of boron carbide crystal whiskers
[NASA-CASE-XHQ-03903] c15 N69-21922

BORON FLUORIDES

Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge
[NASA-CASE-ARC-11057-1] c27 N78-31233

BOUNDARY LAYER CONTROL

Double hinged flap for boundary layer control over trailing edges of wings
[NASA-CASE-XLA-01290] c02 N70-42016

BOUNDARY LAYER SEPARATION

Tertiary flow injection system for thrust vectoring of propulsive nozzle flow
[NASA-CASE-MFS-20831] c28 N71-29153

Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-LEW-11593-1] c20 N76-14190

BOUNDARY LAYER TRANSITION

Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure noise levels during wind tunnel tests
[NASA-CASE-LAR-12261-1] c02 N79-16805

BOUNDARY LAYERS

Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-XFR-02007] c12 N71-24692

Development of thermocouple instrument for measuring temperature of wall heated by flowing fluid without disturbing boundary layer
[NASA-CASE-XLB-05230] c14 N72-27410

BOXES (CONTAINERS)

Sealed storage container for channel carriers with mounted miniature electronic components
[NASA-CASE-MFS-20075] c09 N71-26133

BRAKES (FOR ARRESTING MOTION)

Energy dissipating shock absorbing system for land payload recovery or vehicle braking
[NASA-CASE-XLA-00754] c15 N70-34850

Automatic braking device for rapidly transferring humans or materials from elevated location
[NASA-CASE-XKS-07814] c15 N71-27067

Sprag solenoid brake --- development and operations of electrically controlled brake
[NASA-CASE-MFS-21846-1] c37 N74-26976

Reel safety brake
[NASA-CASE-GSC-11960-1] c37 N77-14479

Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

BRAKING

SUBJECT INDEX

BRAKING

- Direct current electromotive system for regenerative braking of electric motor
[NASA-CASE-XNP-01096] c10 N71-16030
- Linear magnetic braking system with nonuniformly wrapped primary coil producing constant braking force on secondary coil
[NASA-CASE-XLE-05079] c15 N71-17652
- Anemometer with braking mechanism to prevent rotation of wind driven elements
[NASA-CASE-XNP-05224] c14 N71-23726
- BRAZING**
- Anti-wettable materials brazing processes using titanium and zirconium for surface pretreatment
[NASA-CASE-XMS-03537] c15 N69-21471
- Application techniques for protecting materials during salt bath brazing
[NASA-CASE-XLE-00086] c15 N70-33311
- Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-HFS-07369] c15 N71-20443
- Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
- Electric resistance spot welding and brazing for producing metal bonds with superior mechanical and structural characteristics
[NASA-CASE-LAR-11072-1] c15 N73-20535
- Brazing alloy binder
[NASA-CASE-XNP-05868] c26 N75-27125
- Brazing alloy composition
[NASA-CASE-XNP-06053] c26 N75-27126
- Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127
- Method of fluxless brazing and diffusion bonding of aluminum containing components
[NASA-CASE-HSC-14435-1] c37 N76-18455
- BREATHING APPARATUS**
- Three-port transfer valve with one port open continuously suitable for manned space flight
[NASA-CASE-XAC-01158] c15 N71-23051
- Self-contained breathing apparatus
[NASA-CASE-HSC-14733-1] c54 N76-24900
- Portable breathing system
[NASA-CASE-HSC-16182-1] c54 N77-21847
- BRICKS**
- Development of construction block in form of container folded from flat sheet and filled with solid material for architectural purposes
[NASA-CASE-HSC-12233-2] c32 N73-13921
- BRIGHTNESS**
- Modulating and controlling intensity of light beam from high temperature source by servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
- BRIGHTNESS DISCRIMINATION**
- Video signal processing system for sampling video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
- Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
[NASA-CASE-ARC-10329-1] c05 N73-26072
- Illumination control apparatus for compensating solar light
[NASA-CASE-KSC-11010-1] c74 N79-12890
- BRITTLENESS**
- Rock sampling --- apparatus for controlling particle size
[NASA-CASE-XNP-10007-1] c46 N74-23068
- Rock sampling --- method for controlling particle size distribution
[NASA-CASE-XNP-09755] c46 N74-23069
- BROADBAND**
- Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
[NASA-CASE-XMS-05303] c07 N69-27462
- Flexible monopole antenna with broad bandwidth and low voltage standing wave ratio
[NASA-CASE-HSC-12101] c09 N71-18720
- Broadband frequency discriminator with resistive captive inductive networks
[NASA-CASE-NPO-10096] c07 N71-24583
- Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XNP-08880] c09 N71-24808
- Comb type traveling wave maser amplifier for improved high gain broadband output
[NASA-CASE-NPO-10548] c16 N71-24831
- Wideband voltage controlled oscillator with high phase stability
[NASA-CASE-XLA-03893] c10 N71-27271
- Multimode antenna feed system for microwave and broadband communication
[NASA-CASE-GSC-11046-1] c07 N73-28013
- Multifrequency broadband horn antenna
[NASA-CASE-NPO-14588-1] c32 N79-17067
- BROADBAND AMPLIFIERS**
- Solid state broadband stable power amplifier
[NASA-CASE-XNP-10854] c10 N71-26331
- Broadband distribution amplifier with complementary pair transistor output stages
[NASA-CASE-NPO-10003] c10 N71-26415
- BROADCASTING**
- Vehicle locating system utilizing AM broadcasting station carriers
[NASA-CASE-NPO-13217-1] c32 N75-26194
- BROINE**
- Hydrogen-bromine secondary battery
[NASA-CASE-NPO-13237-1] c44 N76-18641
- BRUSHES**
- Fabrication of sintered impurity semiconductor brushes for electrical energy transfer
[NASA-CASE-XNP-01016] c26 N71-17818
- BRUSHES (ELECTRICAL CONTACTS)**
- Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323
- BUCKLING**
- Miniature vibration isolator utilizing elastic tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
- Test equipment to prevent buckling of small diameter specimens during compression tests
[NASA-CASE-LAR-10440-1] c14 N73-32323
- BUFFER STORAGE**
- Data handling based on source significance, storage availability, and data received from source
[NASA-CASE-XNP-04162-1] c08 N70-34675
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
- Digital to analog converter with parallel input/output memory device
[NASA-CASE-KSC-10397] c08 N72-25206
- BUILDINGS**
- Apparatus and method of assembling building blocks by folding pre-cut flat sheets of material during on-site construction
[NASA-CASE-ESC-12233-1] c15 N72-25454
- BULBS**
- External bulb variable volume maser
[NASA-CASE-GSC-12334-1] c36 N79-14362
- BULKHEADS**
- Liquid propellant tank design with semitoroidal bulkhead
[NASA-CASE-XNP-01899] c31 N70-41948
- BUOYANCY**
- Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063
- High visibility air sea rescue panel
[NASA-CASE-HSC-12564-2] c03 N78-25070
- BURNING RATE**
- Pressurized gas injection for burning rate control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819
- Development of apparatus for testing burning rate and flammability of materials
[NASA-CASE-XMS-09690] c33 N72-25913
- Nitramine propellants --- gun propellant burning rate
[NASA-CASE-NPO-14103-1] c28 N78-31255
- BURNOUT**
- Spherical solid propellant rocket engine having abrupt burnout
[NASA-CASE-XHQ-01897] c28 N70-35381

SUBJECT INDEX

CAMERAS

- BUTT JOINTS**
 Channel-type shell construction for rocket engines and related configurations
 [NASA-CASE-XLE-00144] c28 N70-34860
 Segmented back-up bar for butt welding large tubular structures such as rocket booster bodies or tanks
 [NASA-CASE-XHF-00640] c15 N70-39924
 Apparatus for welding sheet material --- butt joints
 [NASA-CASE-XMS-01330] c37 N75-27376
- BUTTERFLY VALVES**
 Flexible inflatable seal for butterfly valves
 [NASA-CASE-XLE-00101] c15 N70-33376
- BYPASSES**
 Low power drain transistor feedback circuit
 [NASA-CASE-XGS-04999] c09 N69-24317
 Helical coaxial resonator RF filter
 [NASA-CASE-XGS-02816] c07 N69-24323
 Current regulating voltage divider design with load current shunting
 [NASA-CASE-MPS-20935] c09 N71-34212
 Electrical interconnection of unilluminated solar cells in solar battery array
 [NASA-CASE-GSC-10344-1] c03 N72-27053
 Shunt regulation electric power system
 [NASA-CASE-GSC-10135] c33 N78-17296
- C**
- CABLE FORCE RECORDERS**
 Design and characteristics of device for showing amount of cable payed out from winch and load imposed
 [NASA-CASE-MSC-12052-1] c15 N71-24599
- CABLES**
 Cable guide and restraint device for reefing tubes in uniform manner
 [NASA-CASE-LAR-10129-1] c15 N73-25512
 Deployable flexible tunnel
 [NASA-CASE-MPS-22636-1] c37 N76-22540
- CABLES (ROPES)**
 High voltage cable for use in high intensity ionizing radiation fields
 [NASA-CASE-XNP-00738] c09 N70-38201
 Force separation rigid tethering device using cables
 [NASA-CASE-XLA-02332] c32 N71-17609
 Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
 [NASA-CASE-XHF-07587] c15 N71-18701
 Design and construction of satellite appendage tie-down cord
 [NASA-CASE-XGS-02554] c31 N71-21064
 Quick attach mechanism for moving or stationary wires, ropes, or cables
 [NASA-CASE-XPR-05421] c15 N71-22994
 Flexible cable that can be made rigid
 [NASA-CASE-MSC-13512-1] c15 N72-22485
 Guide member for stabilizing cable of open shaft elevator
 [NASA-CASE-KSC-10513] c15 N72-25453
 Reefing system
 [NASA-CASE-LAR-10129-2] c37 N74-20063
 Emergency descent device
 [NASA-CASE-MPS-23074-1] c54 N77-21844
 Belt for transmitting power from a driving member to a driven member
 [NASA-CASE-GSC-12289-1] c37 N78-32435
- CADMIUM SULFIDES**
 High field CdS detector for infrared radiation
 [NASA-CASE-LAR-11027-1] c35 N74-18088
 A phase insensitive ultrasonic transducer --- annealing cadmium sulfide crystals
 [NASA-CASE-LAR-12304-1] c71 N78-29871
- CALCIUM**
 Ultrasonic bone densitometer
 [NASA-CASE-MPS-20994-1] c35 N75-12271
- CALCIUM FLUORIDES**
 Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
 [NASA-CASE-XMS-00259] c18 N70-36400
 Production of barium fluoride-calcium fluoride composite lubricant for bearings or seals
 [NASA-CASE-XLE-08511-2] c18 N71-16105
- CALCIUM OXIDES**
 Process for the preparation of calcium superoxide
 [NASA-CASE-ARC-11053-1] c25 N79-10162
- CALCIUM PHOSPHATES**
 Process for preparing calcium phosphate salts for tooth repair
 [NASA-CASE-ERC-10338] c04 N72-33072
- CALCULATORS**
 Sun angle calculator
 [NASA-CASE-MSC-12617-1] c35 N76-29552
- CALIBRATING**
 Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
 [NASA-CASE-XLA-00781] c09 N71-22999
 Combination pressure transducer-calibrator assembly for measuring fluid
 [NASA-CASE-XNP-01660] c14 N71-23036
 Control system for pressure balance device used in calibrating pressure gages
 [NASA-CASE-XNP-04134] c14 N71-23755
 Phonocardiogram simulator producing electrical voltage waves to control amplitude and duration between simulated sounds
 [NASA-CASE-XMS-10804] c05 N71-24606
 Calibrator for measuring and modulating or demodulating laser outputs
 [NASA-CASE-XLA-03410] c16 N71-25914
 Plastic sphere for radar tracking and calibration
 [NASA-CASE-XLA-11154] c07 N72-21117
 Calibration of vacuum gauges for measuring total and partial pressures in ultrahigh vacuum region
 [NASA-CASE-XGS-07752] c14 N73-30390
 System for calibrating pressure transducer
 [NASA-CASE-LAR-10910-1] c35 N74-13132
 In situ transfer standard for ultrahigh vacuum gage calibration
 [NASA-CASE-LAR-10862-1] c35 N74-15092
 Ergometer calibrator --- for any ergometer utilizing rotating shaft
 [NASA-CASE-MPS-21045-1] c35 N75-15932
 Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity
 [NASA-CASE-LAR-11435-1] c35 N76-14542
 High temperature strain gage calibration fixture
 [NASA-CASE-LAR-11500-1] c35 N76-24528
 Laser Doppler velocity simulator
 [NASA-CASE-LAR-12176-1] c36 N78-29435
 Electronically scanned pressure sensor module with in situ calibration capability
 [NASA-CASE-LAR-12230-1] c35 N79-14347
- CALORIMETERS**
 Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature
 [NASA-CASE-XHF-04208] c33 N71-29051
 Heat flow calorimeter --- measures output of Ni-Cd batteries
 [NASA-CASE-GSC-11434-1] c34 N74-27859
- CAMERA SHUTTERS**
 Electrically operated rotary shutter for television camera aboard spacecraft
 [NASA-CASE-XNP-00637] c14 N70-40273
 Magnetically opened diaphragm design with camera shutter and expansion tube applications
 [NASA-CASE-XLA-03660] c15 N71-21060
 Development and characteristics of cyclically operable, optical shutter for use as focal plane shutter for transmitting single radiation pulses
 [NASA-CASE-NPO-10758] c14 N73-14427
 Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly --- for use with cameras mounted in satellites
 [NASA-CASE-GSC-11560-1] c33 N74-20861
- CAMERAS**
 Mechanism for measuring nanosecond time differences between luminous events using streak camera
 [NASA-CASE-XLA-01987] c23 N71-23976
 Camera adapter design for image magnification including lens and illuminator
 [NASA-CASE-XHF-03844-1] c14 N71-26474
 Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
 [NASA-CASE-LAR-10686] c14 N71-28935
 Design and characteristics of laser camera system with diffusion filter of small

CANS

SUBJECT INDEX

particles with average diameter larger than wavelength of laser light
[NASA-CASE-NPO-10417] c16 N71-33410
Optical scanner with linear housing and rotating camera
[NASA-CASE-NPO-11002] c14 N72-22441
Apparatus for on-film optical recording of camera lens aperture and focus setting
[NASA-CASE-MSC-12363-1] c14 N73-26431
Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N73-32322
Real time moving scene holographic camera system
[NASA-CASE-NFS-21087-1] c35 N74-17153
Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014
Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613
Real time, large volume, moving scene holographic camera system
[NASA-CASE-NFS-22537-1] c35 N75-27328
Holographic motion picture camera with Doppler shift compensation
[NASA-CASE-NFS-22517-1] c35 N76-18402
Camera arrangement --- for satellite scanning of earth or sky
[NASA-CASE-GSC-12032-2] c35 N76-19408

CANS

Controlled caging and uncaging mechanism
[NASA-CASE-GSC-11063-1] c37 N77-27400
Cam-operated pitch-change apparatus
[NASA-CASE-LBW-13050-1] c07 N79-14095

CANARD CONFIGURATIONS

Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629
Supersonic transport --- using canard surfaces
[NASA-CASE-LAR-11932-1] c05 N78-32086

CANCER

cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796
Coupling apparatus for ultrasonic medical diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751

CANNULAE

Process for manufacturing cannula
[NASA-CASE-NPO-14073-1] c52 N78-25762

CANOPIES

Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

CANS

Design and characteristics of device for closing canisters under high vacuum conditions
[NASA-CASE-XLA-01446] c15 N71-21528
Extrusion can for extruding ceramics under heat and pressure
[NASA-CASE-NPO-10812] c15 N73-13464

CANTILEVER BEAMS

Pneumatic cantilever beams and platform for space erectable structure
[NASA-CASE-XLA-01731] c32 N71-21045
Cantilever mounted resilient pad gas bearing
[NASA-CASE-LBW-12569-1] c37 N79-10418

CANTILEVER MEMBERS

Deployable cantilever support for deploying solar cell arrays aboard spacecraft and reducing transient loading
[NASA-CASE-NPO-10883] c31 N72-22874
Miniature biaxial strain transducer
[NASA-CASE-LAR-11648-1] c35 N77-14407

CAPACITANCE

Capacitance measuring device for determining flare accuracy on tapered tubes
[NASA-CASE-XKS-03495] c14 N69-39785
Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790
Thin film capacitive bolometer and capacitance temperature interchange sensor
[NASA-CASE-NPO-10607] c09 N71-27232
Capacitive tank gaging device for monitoring one constituent of two phase fluid by sensing dielectric constant
[NASA-CASE-NFS-21629] c14 N72-22442

Adjustable frequency response microphone
[NASA-CASE-LAR-11170-1] c32 N74-12843
Capacitance multiplier and filter synthesizing network
[NASA-CASE-NPO-11948-1] c33 N74-32712
Direct reading inductance meter
[NASA-CASE-NPO-13792-1] c35 N77-32455
Dynamic capacitor having a peripherally driven element and system incorporating the same
[NASA-CASE-XNP-02899-1] c33 N79-21265

CAPACITANCE SWITCHES

Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-XNP-00375] c15 N70-34249
Extra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit
[NASA-CASE-YGS-00381] c09 N70-34819
Feedback integrating circuit with grounded capacitor for signal processing
[NASA-CASE-XAC-10607] c10 N71-23669

CAPACITORS

Temperature sensitive capacitor device for detecting very low intensity infrared radiation
[NASA-CASE-XNP-09750] c14 N69-39937
Energy source with tantalum capacitors in parallel and miniature silver oxide button cells for initiating pyrotechnic devices on spacecraft and rocket vehicles
[NASA-CASE-LAR-10367-1] c03 N70-26817
Electrical power system for space flight vehicles operating over extended periods
[NASA-CASE-XNP-00517] c03 N70-34157
Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618
Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
[NASA-CASE-XLE-01246] c14 N71-10797
Capacitor fabrication by solidifying mixture of ferromagnetic metal particles, nonferromagnetic particles, and dielectric material
[NASA-CASE-LBW-10364-1] c09 N71-13522
Mechanism for measuring nanosecond time differences between luminous events using streak camera
[NASA-CASE-XLA-01987] c23 N71-23976
Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225
Thermodielectric radiometer using polymer film as capacitor
[NASA-CASE-ARC-10138-1] c14 N72-24477
Material compositions and processes for developing dielectric thick films used in microcircuit capacitors
[NASA-CASE-LAR-10294-1] c26 N72-28762
Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10403-1] c14 N73-20477
Insulated electrocardiographic electrodes --- without paste electrolyte
[NASA-CASE-MSC-14339-1] c05 N75-24716
High temperature beryllium oxide capacitor
[NASA-CASE-LBW-11938-1] c33 N76-15373
Energy storage apparatus
[NASA-CASE-GSC-12030-1] c44 N78-24608
Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter
[NASA-CASE-LBW-12791-1] c33 N78-32341
Dynamic capacitor having a peripherally driven element and system incorporating the same
[NASA-CASE-XNP-02899-1] c33 N79-21265

CAPILLARY FLOW

Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035
Lubrication for bearings by capillary action from oil reservoir of porous material
[NASA-CASE-XNP-03972] c15 N71-23048
Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214
Capillary flow weld-bonding
[NASA-CASE-LAR-11726-1] c37 N76-27568

CAPILLARY TUBES

- Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608
- Development of liquid separating system using capillary device connected to flexible bladder storage chamber
[NASA-CASE-XMS-13052] c14 N71-20427
- Interrupter switching device utilizing electrodes and mercury filled capillary tubes in which current flow vaporizes mercury as circuit breaker
[NASA-CASE-XNP-02251] c12 N71-20896
- Diffused waveguiding capillary tube with distributed feedback for a gas laser
[NASA-CASE-NPO-13544-1] c36 N76-18428

CARBAZOLES

- Method of producing output voltage from photovoltaic cell using poly-N-vinyl carbazole complexed with iodine
[NASA-CASE-NPO-10373] c03 N71-18698

CARBOHYDRATES

- Decontamination of petroleum products with honey
[NASA-CASE-XNP-03835] c06 N71-23499

CARBON

- Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety
[NASA-CASE-ARC-11040-2] c24 N78-27184

CARBON ARCS

- Water cooled contactors for holding rotating carbon arc anode
[NASA-CASE-XMS-03700] c15 N69-24266

CARBON COMPOUNDS

- Vapor deposited laminated nitride-silicon coating for corrosion prevention of carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075
- Surfactant-assisted liquefaction of particulate carbonaceous substances
[NASA-CASE-NPO-13904-1] c25 N79-11152

CARBON DIOXIDE

- Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015
- Fast response miniature carbon dioxide detector with no moving parts for measuring concentration in any atmosphere
[NASA-CASE-HSC-13332-1] c14 N72-21408
- Metabolic rate meter and method
[NASA-CASE-NPO-12239-1] c52 N79-21750

CARBON DIOXIDE LASERS

- Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832
- Performance of ac power supply developed for CO₂ laser system
[NASA-CASE-GSC-11222-1] c16 N73-32391
- Stark-effect modulation of CO₂ laser with NH₂D
[NASA-CASE-NPO-11945-1] c36 N76-18427

CARBON DIOXIDE REMOVAL

- Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
- Regenerable device for scrubbing breathable air of CO₂ and moisture without special heat exchanger equipment
[NASA-CASE-HSC-14771-1] c54 N77-32722

CARBON FIBER REINFORCED PLASTICS

- Low density bismaleimide-carbon microballoon composites
[NASA-CASE-ARC-11040-1] c24 N79-16915

CARBON MONOXIDE

- Carbon monoxide monitor --- using real time operation
[NASA-CASE-HFS-22060-1] c35 N75-29380

CARBOXYL GROUP

- Chemical and physical properties of synthetic polyurethane polymer prepared by reacting hydroxy carbonate with organic diisocyanate
[NASA-CASE-HFS-10512] c06 N73-30099

CARBOXYL COMPOUNDS

- Coal desulfurization
[NASA-CASE-NPO-14272-1] c25 N78-33164

CARBOXYL GROUP

- Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929

CARBOXYLIC ACIDS

- Stable polyimide synthesis from mixtures of monomeric diamines and polycarboxylic acid esters
[NASA-CASE-LEW-11325-1] c06 N73-27980
- Fluorinated esters of polycarboxylic acid and lubricating compositions for use at extreme temperature
[NASA-CASE-HFS-21040-1] c06 N73-30098

CARCINOGENS

- Spectrophotofluorometer with 3-dimensional display to identify fluorescence spectra of carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-IGS-01231] c14 N70-41676

CARDIAC VENTRICLES

- Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ARC-10985-1] c52 N79-10724

CARDIOGRAPHY

- Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
- Reference apparatus for medical ultrasonic transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760

CARDIOLOGY

- Development of instantaneous reading tachometer for measuring electrocardiogram signal rate
[NASA-CASE-HFS-20418] c14 N73-24473
- Myocardium wall thickness transducer and measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895

CARDIOTACHOMETERS

- Digital computing cardiometer
[NASA-CASE-HFS-20284-1] c52 N74-12778

CARDIOVASCULAR SYSTEM

- Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
[NASA-CASE-XLA-02898] c05 N71-20268
- Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185
- Catheter tip force transducer for cardiovascular research
[NASA-CASE-NPO-13643-1] c52 N76-29896

CARRIER FREQUENCIES

- Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XNP-01160] c07 N71-11298
- Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628-1] c07 N73-30113
- Demodulator for carrier transducers
[NASA-CASE-NUC-10107-1] c33 N74-17930
- Decision feedback loop for tracking a polyphase modulated carrier
[NASA-CASE-NPO-13103-1] c32 N74-20811

CARRIER WAVES

- Variable frequency subcarrier oscillator with temperature compensation
[NASA-CASE-XNP-03916] c09 N71-28810
- Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems
[NASA-CASE-GSC-11743-1] c32 N75-24981

CARRIERS

- Sealed storage container for channel carriers with mounted miniature electronic components
[NASA-CASE-HFS-20075] c09 N71-26133
- Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-HFS-21394-1] c34 N74-27744

CARTESIAN COORDINATES

- Design and development of random function tracer for obtaining coordinates of points on contour maps
[NASA-CASE-XLA-01401] c15 N71-21179

CARTRIDGES

- Tape cartridge with high capacity storage of endless-loop magnetic tape
[NASA-CASE-IGS-00769] c14 N70-41647
- Endless loop tape transport mechanism for driving and tensioning recording medium in magnetic tape recorder
[NASA-CASE-XGS-01223] c07 N71-10609

CASCADE CONTROL

SUBJECT INDEX

Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813

CASCADE CONTROL
Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
Synchronous dc direct-drive system comprising multiple-loop hybrid control system controlling load directly connected to actuator
[NASA-CASE-GSC-10065-1] c10 N71-27136
Multiloop RC active filter network with low parameter sensitivity and low amplifier gain
[NASA-CASE-ABC-10192] c09 N72-21245

CASCADE FLOW
Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117

CASE BONDED PROPELLANTS
Solid propellant motor
[NASA-CASE-NPO-11458A] c20 N78-32179

CASES (CONTAINERS)
Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-XGS-00886] c03 N71-11053
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876

CASSEGRAIN ANTENNAS
Cassegrain antenna subreflector flange for suppressing ground noise and increasing antenna transmitting efficiency
[NASA-CASE-XNP-00683] c09 N70-35425
Design and operation of multi-feed cone Cassegrain antenna
[NASA-CASE-NPO-10539] c07 N71-11285
Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723
Dual frequency feed systems for Cassegrainian antennas
[NASA-CASE-NPO-13091-1] c09 N73-12214
Low loss dichroic plate
[NASA-CASE-NPO-13171-1] c32 N74-11000

CASTING
Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975

CASTINGS
Method of making an apertured casting --- using duplicate mold
[NASA-CASE-LEW-11169-1] c37 N76-23570

CATALYSIS
Unit for generating thrust from catalytic decomposition of hydrogen peroxide, for high altitude aircraft or spacecraft reaction control
[NASA-CASE-XMS-00583] c28 N70-38504
Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255

CATALYSTS
Catalyst for increased growth of boron carbide crystal whiskers
[NASA-CASE-XHQ-03903] c15 N69-21922
Catalyst bed element removing tool
[NASA-CASE-XFP-00811] c15 N70-36901
Catalyst bed ignition system for hydrazine propellants
[NASA-CASE-XNP-00876] c28 N70-41311
Development of device for detecting hydrogen in ambient environments
[NASA-CASE-HFS-11537] c14 N71-20442
Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
Process for removing sulfur dioxide from gas streams --- using iron as a catalyst
[NASA-CASE-HSC-16299-1] c45 N77-31668
Catalysts for imide formation from aromatic isocyanates and aromatic dianhydrides
[NASA-CASE-ABC-11107-1] c23 N78-22156

CATHETERIZATION
Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ABC-10132-1] c09 N71-24597
Catheter tip force transducer for cardiovascular research

[NASA-CASE-NPO-13643-1] c52 N76-29896

CATHODE RAY TUBES
Cathode ray oscilloscope for analyzing electrical waveforms representing amplitude distribution of time function
[NASA-CASE-XNP-01383] c09 N71-10659
Cathode ray tube system for displaying ones and zeros in binary wave train
[NASA-CASE-XGS-04987] c08 N71-20571
Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182
Color television system utilizing single gun current sensitive color cathode ray tube
[NASA-CASE-ERC-10098] c09 N71-28618
Cathode ray tube with coating of phosphor and cobalt oxides
[NASA-CASE-ERC-10468] c09 N72-20206
Digital video system for displaying image and alphanumeric data on cathode ray tube
[NASA-CASE-NPO-11342] c09 N72-25248
Switching circuit for control of cathode ray tube beam with fast rise time for output signal
[NASA-CASE-KSC-10647-1] c10 N72-31273
Situational display system of cathode ray tubes to assist pilot in aircraft control
[NASA-CASE-ERC-10350] c14 N73-20474
Very high intensity light source using a cathode ray tube --- electron beams
[NASA-CASE-XNP-01296] c33 N75-27250

CATHODES
Encapsulated heater forming hollow body for cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422
Electronic cathodes for use in electron bombardment ion thrusters
[NASA-CASE-XLE-04501] c09 N71-23190
Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
[NASA-CASE-LEW-11358] c03 N71-26084
Characteristics of ion rocket engine with combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N73-24783
Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions
[NASA-CASE-NPO-11806-1] c44 N74-19693
Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-HFS-22517-1] c36 N79-21333

CATIONS
Water insoluble, cationic permselective membrane
[NASA-CASE-NPO-11091] c18 N72-22567

CAVITATION FLOW
Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-XNP-09704] c12 N71-18615

CAVITIES
Black body radiometer having isothermally surrounded cavity for ultraviolet, visible, and infrared radiation
[NASA-CASE-NPO-10810] c14 N71-27323
Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
[NASA-CASE-XNP-05999] c15 N71-29032
Soil burrowing mole apparatus
[NASA-CASE-XNP-07169] c15 N73-32362
Method of constructing dished ion thruster grids to provide hole array spacing compensation
[NASA-CASE-LEW-11876-1] c20 N76-21276
Method of making hollow elastomeric bodies
[NASA-CASE-NPO-13535-1] c37 N76-31524
Method and tool for machining a transverse slot about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249

CAVITY RESONATORS
Helical coaxial resonator RF filter
[NASA-CASE-XGS-02816] c07 N69-24323
Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-HSC-12259-1] c07 N70-12616
Thermally sensitive tuning probe for nullifying detuning effects in microwave cavity resonator of amplifier
[NASA-CASE-XNP-00449] c14 N70-35220

SUBJECT INDEX

CESIUM DIODES

- Holder for high frequency crystal resonators
[NASA-CASE-XNP-03637] c15 N71-21311
- Superconductive resonant cavity for improved signal to noise ratio in communication signal
[NASA-CASE-HSC-12259-2] c07 N72-33146
- Infrared tunable dye laser with nonlinear wavelength mixing crystal in optical cavity
[NASA-CASE-ARC-10463-1] c09 N73-32111
- Tunable cavity resonator with ramp shaped supports
[NASA-CASE-HQN-10790-1] c36 N74-11313
- A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445
- CELESTIAL BODIES**
- Device for determining relative angular position of spacecraft and radiating celestial body
[NASA-CASE-GSC-11444-1] c14 N73-28490
- Position determination systems --- using orbital antenna scan of celestial bodies
[NASA-CASE-HSC-12593-1] c17 N76-21250
- CELESTIAL NAVIGATION**
- Development of star intensity measuring system which minimizes effects of outside interference
[NASA-CASE-XNP-06510] c14 N71-23797
- CELL ANODES**
- Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579
- Heat activated cell with aluminum anode
[NASA-CASE-LEW-11359-2] c03 N72-20034
- Electrically rechargeable REDOX flow cell
[NASA-CASE-LEW-12220-1] c44 N77-14581
- CELL DIVISION**
- Process for control of cell division
[NASA-CASE-LAR-10773-3] c51 N77-25769
- CELLS**
- Separation cell with permeable membranes for fluid mixture component separation
[NASA-CASE-XNS-02952] c18 N71-20742
- CELLS (BIOLOGY)**
- System for and method of freezing biological tissue
[NASA-CASE-GSC-12173-1] c51 N79-10694
- A method for separating biological cells
[NASA-CASE-HFS-23883-1] c51 N79-21743
- CENTRIFUGAL FORCE**
- Counter pumping debris excluder and separator --- gas turbine shaft seals
[NASA-CASE-LEW-11855-1] c07 N78-25090
- CENTRIFUGES**
- Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-XAC-00399] c11 N70-34815
- Liquid-gaseous centrifugal separator for weightlessness environment
[NASA-CASE-XLA-00415] c15 N71-16079
- Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608
- Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282
- CERAMIC BONDING**
- Plasma spraying gun for forming diffusion bonded metal or ceramic coatings on substrates
[NASA-CASE-XLE-01604-2] c15 N71-15610
- Method of forming ceramic to metal seals impervious to gaseous and liquid mercury at high temperature
[NASA-CASE-XNP-01263-2] c15 N71-26312
- CERAMIC COATINGS**
- Evaporating crucible of tantalum-tungsten foil, nickel alumina bonding agent, and ceramic coating
[NASA-CASE-XLA-03105] c15 N69-27483
- Unfired-ceramic, highly reflective composite insulation for large launch vehicles
[NASA-CASE-XNP-01030] c18 N70-41583
- Unfired ceramic insulation for protection from radiant heating environments
[NASA-CASE-HFS-14253] c33 N71-24858
- Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729
- Two-component ceramic coating for silica insulation
[NASA-CASE-HSC-14270-1] c27 N76-22377
- Three-component ceramic coating for silica insulation
[NASA-CASE-HSC-14270-2] c27 N76-23426
- Spray coating apparatus having a rotatable workpiece holder
[NASA-CASE-ARC-11110-1] c37 N78-32434
- CERAMIC NUCLEAR FUELS**
- Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729
- CERAMICS**
- Transpiration cooled turbine blade made from metallic or ceramic wires
[NASA-CASE-XLE-00020] c15 N70-33226
- Characteristics of foamed-in-place ceramic refractory insulating material and method of fabrication
[NASA-CASE-XGS-02435] c18 N71-22998
- Process for fiberizing ceramic materials with high fusion temperatures and tensile strength
[NASA-CASE-XNP-00597] c18 N71-23088
- Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
[NASA-CASE-XNP-05999] c15 N71-29032
- Extrusion can for extruding ceramics under heat and pressure
[NASA-CASE-NPO-10812] c15 N73-13464
- Thermal shock resistant hafnia ceramic materials
[NASA-CASE-LAR-10894-1] c18 N73-14584
- Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466
- Thermal shock and erosion resistant tantalum carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206
- High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302
- High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-3] c27 N78-25219
- Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles
[NASA-CASE-HSC-12619-2] c27 N79-12221
- High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-2] c27 N79-14213
- CERMETS**
- Freeze casting of metal ceramic and refractory compound powders into plastic slips
[NASA-CASE-XLE-00106] c15 N71-16076
- Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729
- Cermet composition and method of fabrication --- heat resistant alloys and powders
[NASA-CASE-NPO-13120-1] c27 N76-15311
- High temperature oxidation resistant cermet compositions
[NASA-CASE-NPO-13666-1] c27 N77-13217
- High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302
- High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-3] c27 N78-25219
- High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-2] c27 N79-14213
- CESIUM**
- Beated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773
- Method of producing I-123 --- by bombardment of cesium causing spallation
[NASA-CASE-LEW-11390-2] c25 N76-27383
- CESIUM DIODES**
- Oxygen-doped tantalum emitter for thermionic devices such as cesium vapor diodes
[NASA-CASE-NPO-11138] c03 N70-34646
- Thermionic cesium diode converter with cavity emitters
[NASA-CASE-NPO-10412] c09 N71-28421

CESIUM ENGINES

CESIUM ENGINES

- Variable thrust ion engine using thermal decomposition of solid cesium compound to produce propulsive vapor
[NASA-CASE-INP-00923] c28 N70-36802
- Method for producing porous tungsten plates for ionizing cesium compounds for propulsion of ion engines
[NASA-CASE-XLE-00455] c28 N70-38197
- CESIUM VAPOR**
- Electric power generation system directory from laser power
[NASA-CASE-NPO-13308-1] c36 N75-30524
- Cesium thermionic converters having improved electrodes
[NASA-CASE-LEW-12038-3] c44 N78-25555
- CHANNEL FLOW**
- Fabrication method for lightweight regeneratively cooled combustion chamber of channel construction
[NASA-CASE-XLE-00150] c28 N70-41818
- Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
[NASA-CASE-NSC-12084-1] c12 N71-17569
- CHANNELS**
- Soft X-ray laser using crystal channels as distributed feedback cavities
[NASA-CASE-NPO-13532-2] c36 N78-25409
- CHANNELS (DATA TRANSMISSION)**
- Error correction circuitry for binary signal channels
[NASA-CASE-INP-03263] c09 N71-18843
- Helical recorder for multiple channel recording
[NASA-CASE-GSC-10614-1] c09 N72-11224
- Asynchronous, multiplexing, single line transmission and recovery data system --- for satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195
- CHARACTER RECOGNITION**
- Automatic character skew and spacing checking network --- of digital tape drive systems
[NASA-CASE-GSC-11925-1] c33 N76-18353
- CHARGE COUPLED DEVICES**
- CCD correlated quadruple sampling processor
[NASA-CASE-NPO-14426-1] c33 N79-17134
- Multispectral imaging and analysis system --- using charge coupled devices and linear arrays
[NASA-CASE-NPO-13691-1] c43 N79-17288
- CHARGE DISTRIBUTION**
- Operation of vidicon tube for scanning spatial charge density pattern
[NASA-CASE-INP-06028] c09 N71-23189
- Charge storage diode modulators and demodulators
[NASA-CASE-NPO-10189-1] c33 N77-21314
- Charge injection method and apparatus of producing large area electrets
[NASA-CASE-NFS-23186-2] c24 N78-25137
- CHARGE EXCHANGE**
- Ion beam thruster shield
[NASA-CASE-LEW-12082-1] c20 N77-10148
- CHARGE TRANSFER**
- Electronic counter circuit utilizing magnetic core and low power consumption
[NASA-CASE-INP-08836] c09 N71-12515
- Pressure transducer --- using a monomeric charge transfer complex sensor
[NASA-CASE-NPO-11150] c35 N78-17359
- CHARGE TRANSFER DEVICES**
- Charge transfer reaction laser with preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402
- Time delay and integration detectors using charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262
- CHARGED PARTICLES**
- Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
- Charged particle analyzer with periodically varying voltage applied across electrostatic deflection members
[NASA-CASE-XAC-05506-1] c24 N71-16095
- Electrostatic charged particle collector containing stacked electrodes for microwave tube
[NASA-CASE-LEW-11192-1] c09 N73-13208
- Method and apparatus for neutralizing potentials induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429

SUBJECT INDEX

CHARGING

- Development of device for simulating charge and discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-25020

CHARRING

- Sensor device with switches for measuring surface recession of charring and noncharring ablators
[NASA-CASE-XLA-01781] c14 N69-39975
- Ablation sensor for measuring char layer recession rate using electric wires
[NASA-CASE-XLA-01794] c33 N71-21586

CHECKOUT

- Digital computer system for automatic prelaunch checkout of spacecraft
[NASA-CASE-YKS-08012-2] c31 N71-15566
- Rapid activation and checkout device for batteries
[NASA-CASE-NFS-22749-1] c44 N76-14601

CHELATES

- Ammonium perchlorate composite propellant with organic Cu/II/ chelate catalytic additive
[NASA-CASE-LAR-10173-1] c27 N71-14090
- Chelate-modified polymers for atmospheric gas chromatography
[NASA-CASE-ARC-1115A-1] c27 N78-27275

CHEMICAL ANALYSIS

- Analytical test apparatus and method for determining oxygen content in alkali liquid metal
[NASA-CASE-XLE-01997] c06 N71-23527
- Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-INP-09451] c06 N71-26754
- Method for determining presence and type of OH in H₂O
[NASA-CASE-NPO-10774] c06 N72-17095
- Development and characteristics of injection system for use with gas chromatograph
[NASA-CASE-ARC-10344-1] c14 N72-21433
- Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N73-20477
- Chromato-fluorographic drug detector --- device for detecting and recording fluorescent properties of materials
[NASA-CASE-ARC-10633-1] c25 N74-26947
- Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844
- Gas chromatograph injection system
[NASA-CASE-ARC-10344-2] c35 N75-26334
- Water quality monitoring system
[NASA-CASE-NSC-16778-1] c51 N78-22589

CHEMICAL AUXILIARY POWER UNITS

- Development and characteristics of ion-exchange membrane and electrode assembly for fuel cells or electrolysis cells
[NASA-CASE-XHS-02063] c03 N71-29044

CHEMICAL BONDS

- Fluorine-containing polyformals
[NASA-CASE-INP-06900-1] c27 N79-21191

CHEMICAL COMPOSITION

- Rubber composition for expulsion bladders and diaphragms for use with hydrazine
[NASA-CASE-NPO-11433] c18 N71-31140
- Phototropic composition of matter with sensitivity to ultraviolet light and usable for producing positive photographic images
[NASA-CASE-XGS-03736] c14 N72-22443
- Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627
- Nitramine propellants --- gun propellant burning rate
[NASA-CASE-NPO-14103-1] c28 N78-31255

CHEMICAL COMPOUNDS

- Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds
[NASA-CASE-HQN-10756-1] c14 N72-25428

CHEMICAL ELEMENTS

- Apparatus for remote handling of materials --- mixing or analyzing dangerous chemicals
[NASA-CASE-LAR-10634-1] c37 N74-18123

CHEMICAL ENGINEERING

- Process for the preparation of calcium superoxide
[NASA-CASE-ARC-11053-1] c25 N79-10162
- A process for converting amorphous to crystalline silicon with attendant purification

- [NASA-CASE-NPO-14223-1] c25 N79-10168
- CHEMICAL EXPLOSIONS**
- Hypervelocity gun --- using both electric and chemical energy for projectile propulsion [NASA-CASE-XLE-03186-1] c09 N79-21084
- CHEMICAL MACHINING**
- Reusable masking boot for chemical machining operations [NASA-CASE-INP-02092] c15 N70-42033
- CHEMICAL PROPERTIES**
- Method for producing alternating ether-siloxane copolymers with stable properties when exposed to elevated temperatures and UV radiation [NASA-CASE-INP-02584] c06 N71-20905
- Chemical and physical properties of synthetic polyurethane polymer prepared by reacting hydroxy carbonate with organic diisocyanate [NASA-CASE-MFS-10512] c06 N73-30099
- Chemical and elastic properties of fluorinated polyurethanes [NASA-CASE-NPO-10767-1] c06 N73-33076
- Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids [NASA-CASE-MFS-22411-1] c37 N74-21058
- CHEMICAL REACTIONS**
- Process for interfacial polymerization of pyromellitic dianhydride and tetraamino benzene [NASA-CASE-XLA-03104] c06 N71-11235
- Synthesis of polymeric schiff bases by schiff-base exchange reactions [NASA-CASE-INP-08651] c06 N71-11236
- Preparation of ordered poly(arylenesiloxane)/polymers [NASA-CASE-INP-10753] c06 N71-11237
- Synthesis and chemical properties of imidazopyrrolone/imide copolymers [NASA-CASE-XLA-08802] c06 N71-11238
- Composition and process for improving definition of resin masks used in chemical etching [NASA-CASE-RGS-04993] c14 N71-17574
- Preparation of inorganic solid film lubricants with long wear life and stability in aerospace environments [NASA-CASE-INP-03988] c15 N71-21403
- Synthesis of high purity dianilinosilanes [NASA-CASE-INP-06409] c06 N71-23230
- Synthesis of aromatic diamines and dialdehyde polymers using Schiff base [NASA-CASE-INP-03074] c06 N71-24740
- Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins [NASA-CASE-NPO-10768] c06 N71-27254
- Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units [NASA-CASE-HQN-10364] c06 N71-27363
- Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions [NASA-CASE-NPO-10070] c15 N71-27372
- Infusible polymer production from reaction of polyfunctional epoxy resins with polyfunctional aziridine compounds [NASA-CASE-NPO-10701] c06 N71-28620
- Process for preparing high molecular weight polyaryloxysilanes from lower molecular weight forms [NASA-CASE-INP-08674] c06 N71-28807
- Organometallic compounds of niobium and tantalum useful for film deposition [NASA-CASE-INP-04023] c06 N71-28808
- Description of method for making homogeneous foamed materials in weightless environment using materials having different physical properties [NASA-CASE-INP-09902] c15 N72-11387
- Method to produce high purity copper fluoride by heating copper hydroxyfluoride powder and subjecting to flowing fluorine gas [NASA-CASE-LEW-10794-1] c06 N72-17093
- Pumping and metering dual piston system and monitor for reaction chamber constituents [NASA-CASE-GSC-10218-1] c15 N72-21465
- Development of apparatus for producing metal powder particles of controlled size [NASA-CASE-XLE-06461-2] c17 N72-28535
- Chemical spot tests for identification of titanium and titanium alloys used in aerospace vehicles [NASA-CASE-LAR-10539-1] c17 N73-12547
- Self-cycling fluid heater for heating continuous fluid stream to ultrahigh temperatures to facilitate chemical reactions [NASA-CASE-MSC-15567-1] c33 N73-16918
- Chemical process for production of polyisobutylene compounds and application as solid rocket propellant binder [NASA-CASE-NPO-10893] c27 N73-22710
- Preparation of stable polyurethane polymer by reacting polymer with diisocyanate [NASA-CASE-MFS-10506] c06 N73-30100
- Preparation of polyurethane polymer by reacting hydroxy polyformal with organic diisocyanate [NASA-CASE-MFS-10509] c06 N73-30103
- Utilization of lithium p-lithiophenoxide to prepare star polymers [NASA-CASE-NPO-10998-1] c06 N73-32029
- Polyimide foam for the thermal insulation and fire protection [NASA-CASE-ARC-10464-1] c27 N74-12812
- Intumescent composition, foamed product prepared therewith and process for making same [NASA-CASE-ARC-10304-2] c27 N74-27037
- Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements [NASA-CASE-LAR-11144-1] c25 N75-26043
- Utilization of oxygen difluoride for syntheses of fluoropolymers [NASA-CASE-NPO-12061-1] c27 N76-16228
- Method for detecting pollutants --- through chemical reactions and heat treatment [NASA-CASE-LAR-11405-1] c45 N76-31714
- Liquid reactant feeder for arc assisted metal reduction reactor [NASA-CASE-NPO-14382-1] c25 N78-22186
- Process for preparing higher oxides of the alkali and alkaline earth metals [NASA-CASE-ARC-10992-1] c26 N78-32229
- Mixed diamines for lower melting addition polyimide preparation and utilization [NASA-CASE-LAR-12054-2] c27 N79-19160
- CHEMICAL TESTS**
- Chemical spot tests for identification of titanium and titanium alloys used in aerospace vehicles [NASA-CASE-LAR-10539-1] c17 N73-12547
- Chemical spot test for identifying magnesium or magnesium alloys used in aerospace applications [NASA-CASE-LAR-10953-1] c17 N73-27446
- CHEMILUMINESCENCE**
- Method and apparatus for eliminating luminol interference material [NASA-CASE-MSC-16260-1] c51 N78-18674
- CHIMNEYS**
- Smokestack-mounted airfoil [NASA-CASE-LAR-11669-1] c45 N79-10570
- CHIPS (ELECTRONICS)**
- PN lock indicator for dithered PN code tracking loop [NASA-CASE-NPO-14435-1] c33 N79-18224
- CHLORINATION**
- Chlorine generator for purifying water in life support systems of manned spacecraft [NASA-CASE-XLA-08913] c14 N71-28933
- CHLOROPHENE RESINS**
- Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices [NASA-CASE-ARC-10180-1] c27 N74-12814
- CHOKES**
- Current dependent variable inductance for input filter chokes of ac or dc power supplies [NASA-CASE-ERC-10139] c09 N72-17154
- CHOKES (RESTRICTIONS)**
- Variably positioned guide vanes for aerodynamic choking [NASA-CASE-LAR-10642-1] c07 N74-31270
- CHOLESTEROL**
- Reduction of blood serum cholesterol [NASA-CASE-NPO-12119-1] c52 N75-15270
- CHROMATOGRAPHY**
- Chromato-fluorographic drug detector --- device for detecting and recording fluorescent properties of materials [NASA-CASE-ARC-10633-1] c25 N74-26947
- CHROMIUM**
- Selective coating for solar panels --- using black chrome and black nickel

CHROMIUM ALLOYS

SUBJECT INDEX

[NASA-CASE-LEW-12159-1] c44 N78-19599
CHROMIUM ALLOYS
 Method of heat treating age-hardenable alloys
 [NASA-CASE-XNP-01311] c26 N75-29236
CHROMOSOMES
 Automated clinical system for chromosome analysis
 [NASA-CASE-NPO-13913-1] c52 N79-12694
CINEMATOGRAPHY
 High speed photo-optical time recorder for
 indicating time at exposure of each frame of
 high speed movie camera film
 [NASA-CASE-KSC-10294] c14 N72-18411
 Holographic motion picture camera with Doppler
 shift compensation
 [NASA-CASE-MFS-22517-1] c35 N76-18402
CIRCUIT BOARDS
 Electrical feedthrough connection for printed
 circuit boards
 [NASA-CASE-XNP-01483] c14 N69-27431
 Electric connector for printed cable to printed
 cable or to printed board
 [NASA-CASE-XNP-00369] c09 N70-36494
 Electrical connection for printed circuits on
 common board, using bellows principle in rivet
 [NASA-CASE-XNP-05082] c15 N70-41960
 Electrical spot terminal assembly for printed
 circuit boards
 [NASA-CASE-NPO-10034] c15 N71-17685
 Development and characteristics of polyimide
 impregnated laminates with fiberglass cloth
 backing for application as printed circuit
 boards
 [NASA-CASE-MFS-20408] c18 N73-12604
 Techniques for packaging and mounting printed
 circuit boards
 [NASA-CASE-MFS-21919-1] c10 N73-25243
 Tool for use in lifting pin supported objects
 [NASA-CASE-NPO-13157-1] c37 N74-32918
 Shock absorbing mount for electrical components
 [NASA-CASE-NPO-13253-1] c37 N75-18573
 Connector --- for connecting circuits on
 different layers of multilayer printed circuit
 boards
 [NASA-CASE-LAR-11709-1] c37 N76-27567
 Traveling wave tube circuit
 [NASA-CASE-LEW-12013-1] c33 N79-10339
CIRCUIT BREAKERS
 Interrupter switching device utilizing
 electrodes and mercury filled capillary tubes
 in which current flow vaporizes mercury as
 circuit breaker
 [NASA-CASE-XNP-02251] c12 N71-20896
 Single electrical circuit component combining
 diode, fuse, and blown indicator with
 elongated tube of heat resistant transparent
 material
 [NASA-CASE-XKS-03381] c09 N71-22796
 Electrical circuit selection device for
 simulating stage separation of flight vehicle
 [NASA-CASE-XKS-04631] c10 N71-23663
 Electromagnetic braking arrangement for
 controlling rotor rotation in electric motor
 [NASA-CASE-XNP-06936] c15 N71-24695
 Relay circuit breaker with magnetic latching to
 provide conductive and nonconductive paths for
 current devices
 [NASA-CASE-MSC-11277] c09 N71-29008
 Multiple circuit protector device
 [NASA-CASE-XMS-02744] c33 N75-27249
 Module failure isolation circuit for paralleled
 inverters
 [NASA-CASE-NPO-14000-1] c33 N78-22299
CIRCUIT DIAGRAMS
 Excitation and detection circuitry for flux
 responsive magnetic head
 [NASA-CASE-XNP-04183] c09 N69-24329
 Impedance transformation device for signal mixing
 [NASA-CASE-XGS-01110] c07 N69-24334
 Design of transistorized ring counter circuit
 with special steering and triggering circuits
 [NASA-CASE-XGS-03095] c09 N69-27463
 Solid state switching circuit design to increase
 current capacity of low rated relay contacts
 [NASA-CASE-XNP-09228] c09 N69-27500
 Extra-long monostable multivibrator employing
 bistable semiconductor switch to allow
 charging of timing circuit
 [NASA-CASE-XGS-00381] c09 N70-34819

Frequency shift keyed demodulator - circuit
 diagrams
 [NASA-CASE-XGS-02889] c07 N71-11282
 Difference indicating circuit used in
 conjunction with device measuring
 gravitational fields
 [NASA-CASE-XNP-08274] c10 N71-13537
 High voltage transistor circuit
 [NASA-CASE-XNP-06937] c09 N71-19516
 Control of fusion welding through use of
 thermocouple wire
 [NASA-CASE-MFS-06074] c15 N71-20393
 Circuitry for developing autocorrelation
 function continuously within signal receiving
 period
 [NASA-CASE-XNP-00746] c07 N71-21476
 Single electrical circuit component combining
 diode, fuse, and blown indicator with
 elongated tube of heat resistant transparent
 material
 [NASA-CASE-XKS-03381] c09 N71-22796
 Design and development of buck-boost voltage
 regulator circuit with additive or subtractive
 alternating current impressed on variable
 direct current source voltage
 [NASA-CASE-GSC-10735-1] c10 N71-26085
 Design of active RC network capable of operating
 at high Q values with reduced sensitivity to
 gain amplification and number of passive
 components
 [NASA-CASE-ABC-10042-2] c10 N72-11256
 Precision surface cutter for screen circuit
 negatives and other microcircuits
 [NASA-CASE-XLA-09843] c15 N72-27485
 Self-regulating proportionally controlled
 heating apparatus and technique
 [NASA-CASE-GSC-11752-1] c77 N75-20140
 Symmetrical odd-modulus frequency divider
 [NASA-CASE-NPO-13426-1] c33 N75-31330
 Trielectrode capacitive pressure transducer
 [NASA-CASE-ABC-10711-2] c33 N76-21390
 Frequency discriminator and phase detector circuit
 [NASA-CASE-NPO-11515-1] c33 N77-13315
CIRCUIT PROTECTION
 Use of silicon controlled rectifier shorting
 circuit to protect thermoelectric generator
 source from thermal destruction
 [NASA-CASE-XGS-04808] c03 N69-25146
 Spark gap type protective circuit for fast
 sensing and removal of overvoltage conditions
 [NASA-CASE-XAC-08981] c09 N69-39897
 Development of in-line fuse device for
 protection of electric circuits from excessive
 currents and voltages
 [NASA-CASE-MSC-12135-1] c09 N71-12526
 Overcurrent protecting circuit for push-pull
 transistor amplifiers
 [NASA-CASE-MSC-12033-1] c09 N71-13531
 Solder coating process for printed copper
 circuit protection
 [NASA-CASE-XNP-01599] c09 N71-20705
 Power supply with overload protection for series
 stage transistor
 [NASA-CASE-XBS-00913] c10 N71-23543
 Selective plating of etched circuits without
 removing previous plating
 [NASA-CASE-XGS-03120] c15 N71-24047
 Circuit design for failure sensing and
 protecting low voltage electric generator and
 power transmission networks
 [NASA-CASE-GSC-10114-1] c10 N71-27366
 Sensing circuit for instantaneous reaction to
 power overloads
 [NASA-CASE-GSC-10667-1] c10 N71-33129
 Current protection equipment for saturable core
 transformers
 [NASA-CASE-EBC-10075-2] c09 N72-22196
 Development of process for forming insulating
 layer between two electrical conductor or
 semiconductor materials
 [NASA-CASE-LEW-10489-1] c15 N72-25447
 Phase protection system for ac power lines
 [NASA-CASE-MSC-17832-1] c33 N74-14956
 Overvoltage protection network
 [NASA-CASE-ABC-10197-1] c33 N74-17929
 Shock absorbing mount for electrical components
 [NASA-CASE-NPO-13253-1] c37 N75-18573
 Multiple circuit protector device
 [NASA-CASE-XMS-02744] c33 N75-27249

SUBJECT INDEX

CLEAVAGE

- Shielded conductor cable system
 - [NASA-CASE-HSC-12745-1] c33 N77-13338
- Multi-cell battery protection system
 - [NASA-CASE-LBW-12039-1] c44 N78-14625
- Improved base drive for paralleled inverter systems
 - [NASA-CASE-NPO-14163-1] c37 N78-22376
- CIRCUITS**
 - Distribution of currents to circuits using electrical adaptor
 - [NASA-CASE-XLA-01288] c09 N69-21470
 - Nondestructive interrogating and state changing circuit for binary magnetic storage elements
 - [NASA-CASE-IGS-00174] c08 N70-34743
 - Electronic circuit system for controlling electric motor speed
 - [NASA-CASE-INP-01129] c09 N70-38712
 - Starting circuit design for initiating and maintaining arcs in vapor lamps
 - [NASA-CASE-INP-01058] c09 N71-12540
 - Voltage drift compensation circuit for analog-to-digital converter
 - [NASA-CASE-INP-04780] c08 N71-19687
 - High voltage divider system for attenuating high voltages to convenient levels suitable for introduction to measuring circuits
 - [NASA-CASE-XLE-02008] c09 N71-21583
 - Negation of magnetic fields produced by thin waferlike circuit elements in space vehicles
 - [NASA-CASE-IGS-03390] c03 N71-23187
 - Circuits for controlling reversible dc motor
 - [NASA-CASE-INP-07477] c09 N71-26092
 - Device for rapid adjustment and maintenance of temperature in electronic components
 - [NASA-CASE-INP-02792] c14 N71-28958
 - Pulse generating circuit for operation at very high duty cycles and repetition rates
 - [NASA-CASE-INP-00745] c10 N71-28960
 - Development of electric circuit for production of different pulse width signals
 - [NASA-CASE-XLA-07788] c09 N71-29139
 - Sensing circuit for instantaneous reaction to power overloads
 - [NASA-CASE-GSC-10667-1] c10 N71-33129
 - Pulsed excitation voltage circuit for strain gage bridge transducers
 - [NASA-CASE-FRC-10036] c09 N72-22200
 - Development of thermal to electric power conversion system using solid state switches of electrical currents to load for Seebeck effect compensation
 - [NASA-CASE-NPO-11388] c03 N72-23048
 - Inductive-capacitive loops as load insensitive power converters
 - [NASA-CASE-ERC-10268] c09 N72-25252
 - Fail-safe multiple transformer circuit configuration
 - [NASA-CASE-NPO-11078] c09 N72-25262
 - Precision surface cutter for screen circuit negatives and other microcircuits
 - [NASA-CASE-XLA-09843] c15 N72-27485
 - Bridge-type gain control circuit
 - [NASA-CASE-GSC-10786-1] c10 N72-28241
 - Active tuned circuits for microelectronic construction
 - [NASA-CASE-GSC-11340-1] c10 N72-33230
 - Thermochromic compositions for detecting heat levels in electronic circuits and devices
 - [NASA-CASE-NPO-10764-1] c14 N73-14428
 - Electrodeless lamp circuit driven by induction
 - [NASA-CASE-MPS-21214-1] c09 N73-30181
 - Circuit for detecting initial systole and diastolic notch --- for monitoring arterial pressure
 - [NASA-CASE-LBW-11581-1] c54 N75-13531
 - Peak holding circuit for extremely narrow pulses
 - [NASA-CASE-HSC-14129-1] c33 N75-18479
 - High voltage distributor
 - [NASA-CASE-GSC-11849-1] c33 N76-16332
 - Redundant operation of counter modules
 - [NASA-CASE-NPO-14162-1] c35 N78-22347
 - A signal attenuator --- pulse rate sensor circuits
 - [NASA-CASE-FRC-11012-1] c33 N78-28339
 - Frequency translating phase conjugation circuit for active retrodirective antenna array
 - [NASA-CASE-NPO-14536-1] c32 N79-14277
- CIRCULAR CONES**
 - Optical apparatus for visual detection of roundness and regularity of cone surfaces
 - [NASA-CASE-INP-00462] c14 N70-34298
- CIRCULAR CYLINDERS**
 - Modulating and controlling intensity of light beam from high temperature source by servocontrolled rotating cylinders
 - [NASA-CASE-IHS-04300] c09 N71-19479
- CIRCULAR POLARIZATION**
 - Left and right hand circular electromagnetic polarization excitation by phase shifter and hybrid networks
 - [NASA-CASE-GSC-10021-1] c09 N71-24595
 - Planar array circularly polarized antenna with wall slot excitation
 - [NASA-CASE-NPO-10301] c07 N72-11148
 - Circularly polarized antenna with linearly polarized pair of elements
 - [NASA-CASE-ERC-10214] c09 N72-31235
 - Dual frequency circularly polarized microwave integrated antenna
 - [NASA-CASE-HSC-16100-1] c32 N77-15233
- CIRCULAR TUBES**
 - Evacuated displacement compression molding
 - [NASA-CASE-LAR-10782-1] c31 N74-14133
- CIRCULATORS (PHASE SHIFT CIRCUITS)**
 - Development of electromagnetic wave transmission line circulator and application to parametric amplifier circuits
 - [NASA-CASE-INP-02140] c09 N71-23097
 - Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures
 - [NASA-CASE-NPO-14254-1] c36 N78-22359
- CLAMPING CIRCUITS**
 - Clamped amplifier circuit for horizon scanner enabling amplification and accurate measurement of specified parameters
 - [NASA-CASE-IGS-01784] c10 N71-20782
- CLAMPS**
 - Portable device for aligning surfaces of two adjacent wall or sheet sections for joining at point of junction
 - [NASA-CASE-INP-01452] c15 N70-41371
 - Hydraulic clamping of sheet stock specimens
 - [NASA-CASE-XLA-05100] c15 N71-17696
 - Inertial component clamping assembly design for spacecraft guidance and control system mounting
 - [NASA-CASE-IHS-02184] c15 N71-20813
 - Design and development of module joint clamping device for application to solar array construction
 - [NASA-CASE-INP-02341] c15 N71-21531
 - Quick attach mechanism for moving or stationary wires, ropes, or cables
 - [NASA-CASE-IFR-05421] c15 N71-22994
- CLAYS**
 - White paint production by heating impure aluminum silicate clay having low solar absorptance
 - [NASA-CASE-INP-02139] c18 N71-24184
- CLEAN ROOMS**
 - Environmentally controlled suit for working in sterile chamber
 - [NASA-CASE-LAR-10076-1] c05 N73-20137
- CLEANERS**
 - Device for back purging thrust engines
 - [NASA-CASE-IHS-04826] c28 N71-28849
 - Noncontaminating swab with absorbent end covered with netted envelope to prevent egress of absorbent material
 - [NASA-CASE-MPS-18100] c15 N72-11390
- CLEANING**
 - Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning
 - [NASA-CASE-LAR-10590-1] c15 N70-26819
 - System and method for refurbishing and processing parachutes
 - [NASA-CASE-KSC-11042-1] c02 N78-22026
- CLEAR AIR TURBULENCE**
 - Development of radiometric sensor to warn aircraft pilots of region of clear air turbulence along flight path
 - [NASA-CASE-ERC-10081] c14 N72-28437
 - Clear air turbulence detector
 - [NASA-CASE-MPS-21244-1] c36 N75-15028
- CLEAVAGE**
 - Method and apparatus for slicing crystals
 - [NASA-CASE-GSC-12291-1] c31 N78-24386

CLIMBING FLIGHT

SUBJECT INDEX

CLIMBING FLIGHT

Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157

CLINICAL MEDICINE

Process for preparing calcium phosphate salts for tooth repair
[NASA-CASE-ERC-10338] c04 N72-33072

Measurement of gas production of microorganisms --- using pressure sensors
[NASA-CASE-LAR-11326-1] c35 N75-33368

Production of I-123
[NASA-CASE-LEW-11390-3] c25 N76-29379

A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796

Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N79-12694

CLOCKS

Time synchronization system for synchronizing clocks at remote locations with master clock using moon reflected coded signals
[NASA-CASE-NPO-10143] c10 N71-26326

Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137

Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-MSC-12531-1] c35 N75-30504

Clock setter
[NASA-CASE-LAR-11458-1] c35 N76-16392

CLOSED CIRCUIT TELEVISION

Spacecraft docking and alignment system --- using television camera system
[NASA-CASE-MSC-12559-1] c18 N76-14186

CLOSED CYCLES

Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-XNP-01501] c21 N70-41930

Digital phase-locked loop
[NASA-CASE-GSC-11623-1] c33 N75-25040

Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-MFS-23059-1] c44 N76-27664

CLOSED ECOLOGICAL SYSTEMS

Potable water reclamation from human wastes in zero-G environment
[NASA-CASE-XLA-03213] c05 N71-11207

Spacecraft with artificial gravity and earthlike atmosphere
[NASA-CASE-LEW-11101-1] c31 N73-32750

Regenerable device for scrubbing breathable air of CO2 and moisture without special heat exchanger equipment
[NASA-CASE-MSC-14771-1] c54 N77-32722

CLOSURES

Design and characteristics of device for closing canisters under high vacuum conditions
[NASA-CASE-XLA-01446] c15 N71-21528

Spacesuit torso closure
[NASA-CASE-ARC-11100-1] c54 N78-31736

CLOUD CHAMBERS

Heat transfer device
[NASA-CASE-MFS-22938-1] c34 N76-18374

CLOUDS (METEOROLOGY)

Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318

Electric field measuring and display system --- for cloud formations
[NASA-CASE-KSC-10731-1] c33 N74-27862

CLUTTER

Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266

CMOS

Complementary DMOS-VNOS integrated circuit structure
[NASA-CASE-GSC-12190-1] c33 N79-12321

COAL

Underground mineral extraction
[NASA-CASE-NPO-14140-1] c31 N78-24387

Viscosity measuring instrument
[NASA-CASE-NPO-14501-1] c35 N78-27385

Coal desulfurization
[NASA-CASE-NPO-14272-1] c25 N78-33164

Fluidized bed coal combustion reactor

[NASA-CASE-NPO-14273-1] c37 N79-14388

COAL LIQUEFACTION

Surfactant-assisted liquefaction of particulate carbonaceous substances
[NASA-CASE-NPO-13904-1] c25 N79-11152

COAL UTILIZATION

Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527

COATING

Solder coating process for printed copper circuit protection
[NASA-CASE-XNP-01599] c09 N71-20705

High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875

Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

Selective coating for solar panels --- using black chrome and black nickel
[NASA-CASE-LEW-12159-1] c44 N78-19599

Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge
[NASA-CASE-ARC-11057-1] c27 N78-31233

Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses
[NASA-CASE-ARC-11039-1] c74 N78-32854

COATINGS

Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-XMS-00259] c18 N70-36400

Cathode ray tube with coating of phosphor and cobalt oxides
[NASA-CASE-ERC-10468] c09 N72-20206

Durable antistatic coating for polymethylmethacrylate
[NASA-CASE-NPO-13867-1] c27 N78-14164

Edge coating of flat wires
[NASA-CASE-XNP-05757-1] c31 N79-21227

COAXIAL CABLES

Design and development of device for cooling inner conductor of coaxial cable
[NASA-CASE-XNP-09775] c09 N71-20445

Design and development of electric connectors for rigid and semirigid coaxial cables
[NASA-CASE-XNP-04732] c09 N71-20851

Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ARC-10132-1] c09 N71-24597

Collapsible antenna boom and coaxial transmission line having inflatable inner tube
[NASA-CASE-MFS-20068] c07 N71-27191

Vibration isolation system, using coaxial helical compression springs
[NASA-CASE-NPO-11012] c15 N72-11391

Development and characteristics of hermetically sealed coaxial package for containing microwave semiconductor components
[NASA-CASE-GSC-10791-1] c15 N73-14469

System for stabilizing cable phase delay utilizing a coaxial cable under pressure
[NASA-CASE-NPO-13138-1] c33 N74-17927

Refrigerated coaxial coupling --- for microwave equipment
[NASA-CASE-NPO-13504-1] c33 N75-30430

COAXIAL PLASMA ACCELERATORS

Self-energized plasma compressor
[NASA-CASE-MFS-22145-2] c75 N76-17951

COBALT ALLOYS

High strength, corrosion resistant cobalt-based alloys for aerospace structures
[NASA-CASE-XLE-00726] c17 N71-15644

High temperature cobalt-base alloy resistant to corrosion by liquid metals and to sublimation in vacuum environment
[NASA-CASE-XLE-02991] c17 N71-16025

High temperature ferromagnetic cobalt-base alloy for electrical power generating equipment
[NASA-CASE-XLE-03629] c17 N71-23248

Cobalt-tungsten alloys with superior strength at elevated temperatures

SUBJECT INDEX

COLOR

- [NASA-CASE-LEW-10436-1] c17 N73-32415
- COBALT OXIDES**
Cathode ray tube with coating of phosphor and cobalt oxides
[NASA-CASE-ERC-10468] c09 N72-20206
- COCKPIT SIMULATORS**
Controlled visibility device for simulating poor visibility conditions in training pilots in instrument landing and flight procedures
[NASA-CASE-IFR-04147] c11 N71-10748
- CODERS**
Design and development of encoder/decoder system to generate binary code which is function of outputs of plurality of bistable elements
[NASA-CASE-NPO-10342] c10 N71-33407
Biorthogonal encoder with modular design
[NASA-CASE-NPO-10629] c08 N72-18184
Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598
Digital plus analog output encoder
[NASA-CASE-GSC-12115-1] c62 N76-31946
Twin-capacitive shaft angle encoder with analog output signal
[NASA-CASE-ARC-10897-1] c33 N77-31404
- CODING**
Description of error correcting methods for use with digital data computers and apparatus for encoding and decoding digital data
[NASA-CASE-XNP-02748] c08 N71-22749
Apparatus and digital technique for coding rate data
[NASA-CASE-LAR-10128-1] c08 N73-20217
Binary concatenated coding system
[NASA-CASE-MSC-14082-1] c60 N76-23850
Differential pulse code modulation
[NASA-CASE-MSC-12506-1] c32 N77-12239
- COEFFICIENT OF FRICTION**
Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489
Locking redundant link
[NASA-CASE-LAR-11900-1] c37 N79-14382
- COENZYMES**
Bioassay of flavin coenzymes
[NASA-CASE-GSC-10565-1] c06 N72-25149
- COHERENT ELECTROMAGNETIC RADIATION**
Design of folded traveling wave maser structure
[NASA-CASE-XNP-05219] c16 N71-15550
Development of focused image holography with extended sources
[NASA-CASE-ERC-10019] c16 N71-15551
- COHERENT LIGHT**
Hybrid holographic system using reference, transmitted, and reflected beams simultaneously
[NASA-CASE-NFS-20074] c16 N71-15565
Development of apparatus for amplitude modulation of diode laser by periodic discharge of direct current power supply
[NASA-CASE-XNS-04269] c16 N71-22895
Coherent light beam device and method for measuring gas density in vacuum chambers
[NASA-CASE-XER-11203] c14 N71-28994
- COHERENT RADIATION**
Design and development of multichannel laser remote control system using modulated helium-neon laser as transmitter and light collector as receiving antenna
[NASA-CASE-LAR-10311-1] c16 N73-16536
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284
Apparatus for scanning the surface of a cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009
Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425
Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575
- COINCIDENCE CIRCUITS**
Frequency measurement by coincidence detection with standard frequency
[NASA-CASE-MSC-14649-1] c33 N76-16331
- COLD CATHODES**
Cold cathode discharge tube with pressurized gas cell for meteoroid detection in space
[NASA-CASE-LAR-10483-1] c14 N73-32327
- COLD GAS**
Annular arc accelerator shock tube
[NASA-CASE-NPO-13528-1] c09 N77-10071
- COLD WELDING**
Method of cold welding using ion beam technology
[NASA-CASE-LEW-12982-1] c37 N78-28459
- COLD WORKING**
Cold metal hydroforming techniques using epoxy molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346
- COLLAPSE**
Collapsible piston for hypervelocity gun
[NASA-CASE-MSC-13789-1] c11 N73-32152
- COLLECTION**
Automatic liquid inventory collecting and dispensing unit
[NASA-CASE-LAR-11071-1] c35 N75-19611
Urine collection device
[NASA-CASE-MSC-16433-1] c52 N78-27750
- COLLIMATION**
Long range laser traversing system
[NASA-CASE-GSC-11262-1] c36 N74-21091
Optical alignment device
[NASA-CASE-ARC-10932-1] c74 N76-22993
Spatial filter for Q-switched lasers
[NASA-CASE-LEW-12164-1] c36 N77-32478
Dual acting slit control mechanism
[NASA-CASE-LAR-11370-1] c35 N78-32399
- COLLIMATORS**
X ray collimating structure for focusing radiation directly onto detector
[NASA-CASE-XHQ-04106] c14 N70-40240
Collimator for analyzing spatial location of near and distant sources of radiation
[NASA-CASE-NFS-20546-2] c14 N73-30389
Multiplate focusing collimator --- for scanning small near radiation sources
[NASA-CASE-NFS-20932-1] c35 N75-19616
Dual acting slit control mechanism
[NASA-CASE-LAR-11370-1] c35 N78-32399
- COLLISION AVOIDANCE**
Cooperative Doppler radar system for avoiding midair collisions
[NASA-CASE-LAR-10403] c21 N71-11766
Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
Vertically stacked collinear array of independently fed omnidirectional antennas for use in collision warning systems on commercial aircraft
[NASA-CASE-LAR-10545-1] c09 N72-21244
Economical satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631
Development and operating principles of collision warning system for aircraft accident prevention
[NASA-CASE-HQN-10703] c21 N73-13643
Development and characteristics of electronic signalling system and data processing equipment for warning systems to avoid midair collisions between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641
Satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419-1] c03 N75-30132
- COLLOIDAL GENERATORS**
Colloidal particle generator for electrostatic engine for propelling space vehicles
[NASA-CASE-XLE-00817] c28 N70-33265
- COLLOIDAL PROPELLANTS**
Colloidal particle generator for electrostatic engine for propelling space vehicles
[NASA-CASE-XLE-00817] c28 N70-33265
Low density and low viscosity magnetic propellant for use under zero gravity conditions
[NASA-CASE-XLE-01512] c12 N70-40124
Electrostatic microthrust propulsion system with annular slit colloid thruster
[NASA-CASE-GSC-10709-1] c28 N71-25213
- COLLOIDS**
The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols
[NASA-CASE-GSC-12088-1] c74 N78-13874
- COLOR**
Chemical spot test for identifying magnesium or magnesium alloys used in aerospace applications
[NASA-CASE-LAR-10953-1] c17 N73-27446

COLOR PHOTOGRAPHY

SUBJECT INDEX

COLOR PHOTOGRAPHY

Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
[NASA-CASE-XHF-01779] c12 N71-20815

COLOR TELEVISION

Color television system utilizing single gun current sensitive color cathode ray tube
[NASA-CASE-ERC-10098] c09 N71-28618
Color television system for allowing monochrome television camera to produce color pictures
[NASA-CASE-HSC-12146-1] c07 N72-17109
Video tape recorder with scan conversion playback for color television signals
[NASA-CASE-NPO-10166-1] c07 N73-22076
Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391
System for producing chroma signals
[NASA-CASE-HSC-14683-1] c74 N77-18893
Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083

COLOR VISION

Color perception tester for testing color code perceptiveness of individuals
[NASA-CASE-KSC-10278] c05 N72-16015

COLUMNS (PROCESS ENGINEERING)

Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936

COLUMNS (SUPPORTS)

Lightweight structural columns --- for truss structures
[NASA-CASE-LAR-12095-1] c39 N77-27432
Telescoping columns --- parabolic antenna support
[NASA-CASE-LAR-12195-1] c37 N78-33446

COMBINATORIAL ANALYSIS

Apparatus for computing square roots
[NASA-CASE-IGS-04768] c08 N71-19437

COMBUSTION

Device for detection of combustion light preceding gaseous explosions
[NASA-CASE-LAR-10739-1] c14 N73-16484

COMBUSTION CHAMBERS

Rocket chamber leak test fixture using tubular plug
[NASA-CASE-XPR-09479] c14 N69-27503
Propellant injectors for rocket combustion chambers
[NASA-CASE-XLE-00103] c28 N70-33241
Metal ribbon wrapped outer wall for regeneratively cooled combustion chamber
[NASA-CASE-XLE-00164] c15 N70-36411
Apparatus for cooling and injecting hypergolic propellants into combustion chamber of small rocket engine
[NASA-CASE-XLE-00303] c15 N70-36535
Ignition system for monopropellant combustion devices
[NASA-CASE-XNP-00249] c28 N70-38249
Fabrication method for lightweight regeneratively cooled combustion chamber of channel construction
[NASA-CASE-XLE-00150] c28 N70-41818
Rocket combustion chamber stability by controlling transverse instability during propellant combustion
[NASA-CASE-XLE-04603] c33 N71-21507
Regenerative cooling system for rocket combustion chamber using coolant tubes in convergent-divergent nozzle
[NASA-CASE-XLE-04857] c28 N71-23968
Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736
Coaxial injector for mixing liquid propellants within combustion chambers
[NASA-CASE-NPO-11095] c15 N72-25455
Swirl can, full-annulus combustion chambers for high performance gas turbine engines
[NASA-CASE-LEW-11326-1] c23 N73-30665
Method of electroforming a rocket chamber
[NASA-CASE-LEW-11118-1] c20 N74-32919
Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-LEW-11593-1] c20 N76-14190

Reduction of nitric oxide emissions from a combustor
[NASA-CASE-ARC-10814-2] c25 N77-31260
Fuel combustor
[NASA-CASE-LEW-12137-1] c25 N78-10224
Direct heating surface combustor
[NASA-CASE-LEW-11877-1] c34 N78-27357
Combustor --- low nitrogen oxide formation
[NASA-CASE-NPO-13958-1] c25 N79-11151
A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-NPS-23904-1] c20 N79-13077
Heat exchanger --- rocket combustion chambers and cooling systems
[NASA-CASE-LEW-12252-1] c34 N79-13288
Fluidized bed coal combustion reactor
[NASA-CASE-NPO-14273-1] c37 N79-14388
COMBUSTION CONTROL
Pressurized gas injection for burning rate control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819
COMBUSTION EFFICIENCY
Fuel injection system for maximum combustion efficiency of rocket engines
[NASA-CASE-XLE-00111] c28 N70-38199
COMBUSTION PHYSICS
Characteristics of solid propellant rocket engine with controlled rate of thrust buildup operating in vacuum environment
[NASA-CASE-NPO-11559] c28 N73-24784
Plasma igniter for internal combustion engine
[NASA-CASE-NPO-13828-1] c37 N79-11405
COMBUSTION PRODUCTS
Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-IGS-01971] c15 N71-15922
Device for generating and controlling combustion products for testing of fire detection system
[NASA-CASE-GSC-11095-1] c14 N72-10375
System for minimizing internal combustion engine pollution emission
[NASA-CASE-NPO-13402-1] c37 N76-18457
Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527
Combustor --- low nitrogen oxide formation
[NASA-CASE-NPO-13958-1] c25 N79-11151
COMBUSTION STABILITY
Rocket combustion chamber stability by controlling transverse instability during propellant combustion
[NASA-CASE-XLE-04603] c33 N71-21507
COMMAND AND CONTROL
Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289
COMMAND MODULES
Energy absorbing crew couch strut for Apollo command module
[NASA-CASE-HSC-12279] c15 N72-17450
COMMERCIAL AIRCRAFT
Aircraft design concept
[NASA-CASE-LAR-11852-1] c05 N77-15027
COMMUNICATING
Communication between computers using two identical communications links
[NASA-CASE-NPO-11161] c08 N72-25207
COMMUNICATION
Circuitry for developing autocorrelation function continuously within signal receiving period
[NASA-CASE-XNP-00746] c07 N71-21476
Superconductive resonant cavity for improved signal to noise ratio in communication signal
[NASA-CASE-HSC-12259-2] c07 N72-33146
COMMUNICATION CABLES
Method of making molded electric connector for use with flat conductor cables
[NASA-CASE-XNP-03498] c15 N71-15986
Process for making RF shielded cable connector assemblies and resulting structures
[NASA-CASE-GSC-11215-1] c09 N73-28083
Fiber distributed feedback laser
[NASA-CASE-NPO-13531-1] c36 N76-24553
COMMUNICATION EQUIPMENT
Multiplexed communication system design including automatic correction of transmission

SUBJECT INDEX

COMPOSITE STRUCTURES

- errors introduced by frequency spectrum shifts
[NASA-CASE-IXP-01306] c07 N71-20814
- Binary data decoding device for use at receiving
end of communication channel
[NASA-CASE-NPO-10118] c07 N71-24741
- Characteristics of data-aided carrier tracking
loop used for tracking carrier in angle
modulated communications system
[NASA-CASE-NPO-11282] c10 N73-16205
- Doppler compensated communication system for
locating supersonic transport position
[NASA-CASE-GSC-10087-4] c07 N73-20174
- Differential phase shift keyed communication
system
[NASA-CASE-MSC-14065-1] c32 N74-26654
- COMMUNICATION SATELLITES**
- Erectable, inflatable, radio signal reflecting
passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309
- Development of antenna system for spin
stabilized communication satellite for
simultaneous reception and transmission of data
[NASA-CASE-IGS-02607] c31 N71-23009
- Elimination of tracking occultation problems
occurring during continuous monitoring of
interplanetary missions by using Earth-
orbiting communications satellite
[NASA-CASE-IAC-06029-1] c31 N71-24813
- Satellite radio communication system with remote
steerable antenna
[NASA-CASE-IXP-02389] c07 N71-28900
- Satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419-1] c03 N75-30132
- Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323
- Satellite personal communications system
[NASA-CASE-NPO-18480-1] c32 N78-25275
- COMMUTATION**
- High speed low level voltage commutating switch
[NASA-CASE-IAC-00060] c09 N70-39915
- COMMUTATORS**
- Rocket-borne aspect sensor consisting of
radiation sensor, apertured disk, commutator,
and counting circuits
[NASA-CASE-IGS-08266] c14 N69-27432
- Commutator for steering precisely controlled
bidirectional currents through numerous loads
by use of magnetic core shift registers
[NASA-CASE-NPO-10743] c08 N72-21199
- COMPARATOR CIRCUITS**
- Describing frequency discriminator using digital
logic circuits and supplying single binary
output signal
[NASA-CASE-MFS-14322] c08 N71-18692
- Development of pulsed differential comparator
circuit
[NASA-CASE-IXE-03804] c10 N71-19471
- Multi-cell battery protection system
[NASA-CASE-LEW-12039-1] c44 N78-14625
- Window comparator
[NASA-CASE-PRC-10090-1] c33 N78-18308
- COMPARATORS**
- Photometric flow meter with comparator reference
means
[NASA-CASE-IGS-01331] c14 N71-22996
- Characteristics of comparator circuits for
comparison of binary numbers in information
processing system
[NASA-CASE-IXP-04819] c08 N71-23295
- COMPENSATORS**
- Star image motion compensator using telescope
for maintaining fixed images
[NASA-CASE-LAR-10523-1] c14 N72-22444
- Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c08 N79-15057
- Thermal compensator for closed-cycle helium
refrigerator --- assuring constant temperature
for an infrared laser diode
[NASA-CASE-GSC-12168-1] c31 N79-17029
- COMPOSITE MATERIALS**
- High strength reinforced metallic composites for
applications over wide temperature range
[NASA-CASE-IXE-02428] c17 N70-33288
- Method for producing fiber reinforced metallic
composites with high strength and elasticity
over wide temperature range
[NASA-CASE-IXE-00231] c17 N70-38198
- Composites reinforced with short metal fibers or
whiskers and having high tensile strength
[NASA-CASE-IXE-00228] c17 N70-38490
- Unfired-ceramic, highly reflective composite
insulation for large launch vehicles
[NASA-CASE-IXP-01030] c18 N70-41583
- Freeze casting of metal ceramic and refractory
compound powders into plastic slips
[NASA-CASE-IXE-00106] c15 N71-16076
- Preparation and characteristics of lightweight
refractory insulation
[NASA-CASE-IXP-05279] c18 N71-16124
- Flexible composite membrane structure impervious
to extremely reactive chemicals in rocket
propellants
[NASA-CASE-IXP-08837] c18 N71-16210
- Cryostat for flexure fatigue testing of
composite materials
[NASA-CASE-IXP-02964] c14 N71-17659
- Description of method for producing metallic
composites reinforced with ceramic and
refractory hard metals that are fibered in place
[NASA-CASE-IXE-03925] c18 N71-22894
- Electrically coupled individually encapsulated
solar cell matrix
[NASA-CASE-NPO-11190] c03 N71-34044
- Heat treatment and tooling for forming shapes
from thermosetting honeycomb core sheets
[NASA-CASE-NPO-11036] c15 N72-24522
- Method for making fiber composites with high
strength at high temperatures
[NASA-CASE-LEW-10424-2-2] c18 N72-25539
- Development of thermal compensating structure
which maintains uniform length with changes in
temperature
[NASA-CASE-MFS-20433] c15 N72-28496
- Bearing material --- composite material with low
friction surface for rolling or sliding contact
[NASA-CASE-LEW-11930-1] c24 N76-22309
- Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541
- Non-flammable elastomeric fiber from a
fluorinated elastomer and containing an
halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
- Method of growing composites of the type
exhibiting the Soret effect --- improved
structure of eutectic alloy crystals
[NASA-CASE-MFS-22926-1] c24 N77-27187
- Hybrid composite laminate structures
[NASA-CASE-LEW-12118-1] c24 N77-27188
- Catalytic trimerization of aromatic nitriles and
triaryl-s-triazine ring cross-linked high
temperature resistant polymers and copolymers
made thereby
[NASA-CASE-LEW-12053-2] c23 N77-32244
- Bearing material
[NASA-CASE-LEW-11930-3] c24 N77-32249
- Honeycomb-laminate composite structure
[NASA-CASE-ARC-10913-1] c24 N78-15180
- High temperature resistant cermet and ceramic
compositions --- for thermal resistant
insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302
- Molded composite pyrogen igniter for rocket motors
--- solid propellant ignition
[NASA-CASE-LAR-12018-1] c20 N78-24275
- Atomic hydrogen storage method and apparatus
[NASA-CASE-LEW-12081-1] c28 N78-24365
- Ceramic fiber insulating material and method of
producing same --- aircraft construction
materials
[NASA-CASE-MSC-14795-2] c24 N78-25138
- Fibrous refractory composite insulation
[NASA-CASE-ARC-11169-1] c24 N78-32189
- Cork-resin ablative insulation for complex
surfaces and method for applying the same
[NASA-CASE-MFS-23626-1] c24 N78-32190
- Method of making bearing materials ---
self-lubricating, oxidation resistant
composites for high temperature applications
[NASA-CASE-LEW-11930-4] c24 N79-17916
- Composite seal for turbomachinery --- backings
for turbine engine shrouds
[NASA-CASE-LEW-12131-1] c37 N79-18318
- COMPOSITE PROPELLANTS**
- Ammonium perchlorate composite propellant with
organic Cu/II/ chelate catalytic additive
[NASA-CASE-LAR-10173-1] c27 N71-14090
- COMPOSITE STRUCTURES**
- Inflatable honeycomb panel element for

COMPOSITION (PROPERTY)

lightweight structures usable in space stations and other construction
[NASA-CASE-XLA-00204] c32 N70-36536

Shrouded composite propulsion system configuration
[NASA-CASE-XLA-01043] c28 N71-10780

Development of composite structures for spacecraft to serve as anti-meteoroid device
[NASA-CASE-LAR-10788-1] c31 N73-20880

Bonding method in the manufacture of continuous regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

Varying density composite structure
[NASA-CASE-LAR-11181-1] c39 N75-31479

Leading edge protection for composite blades
[NASA-CASE-LBW-12550-1] c24 N77-19170

Composite sandwich lattice structure
[NASA-CASE-LAR-11898-1] c24 N78-10214

Method of making a composite sandwich lattice structure
[NASA-CASE-LAR-11898-2] c24 N78-17149

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-NFS-23518-3] c44 N78-25557

Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety
[NASA-CASE-ARC-11040-2] c24 N78-27184

COMPOSITION (PROPERTY)

Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393

COMPRESSED AIR

Actuator using compressed gas as driving force to control valve handling large liquid flows
[NASA-CASE-XHQ-01208] c15 N70-35409

COMPRESSIBILITY

Nozzle extraction process and handmeter for measuring handle
[NASA-CASE-LAR-12147-1] c31 N79-11246

COMPRESSIBLE FLUIDS

Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618

Apparatus for tensile strength testing of specimen by pressurized fluid
[NASA-CASE-XKS-06250] c14 N71-15600

COMPRESSION

Method and apparatus for producing very low temperature refrigeration based on gas pressure balance
[NASA-CASE-XNP-08877] c15 N71-23025

Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article
[NASA-CASE-LAR-10489-1] c31 N74-18124

COMPRESSION LOADS

Pressure transducer for systems for measuring forces of compression
[NASA-CASE-NPO-10832] c14 N72-21405

Solid medium thermal engine
[NASA-CASE-ARC-10461-1] c44 N74-33379

Locking redundant link
[NASA-CASE-LAR-11900-1] c37 N79-14382

COMPRESSION TESTS

Test equipment to prevent buckling of small diameter specimens during compression tests
[NASA-CASE-LAR-10440-1] c14 N73-32323

Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature
[NASA-CASE-LAR-10426-1] c09 N74-19528

COMPRESSOR BLADES

Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LBW-10533-1] c15 N73-28515

COMPRESSORS

Thermal pump-compressor for converting solar energy
[NASA-CASE-XLA-00377] c33 N71-17610

Self-energized plasma compressor
[NASA-CASE-NFS-22145-2] c75 N76-17951

Gas compression apparatus
[NASA-CASE-HSC-14757-1] c35 N78-10428

COMPUTATION

Apparatus for computing square roots
[NASA-CASE-XGS-04768] c08 N71-19437

Ruler for making navigational computations
[NASA-CASE-XNP-01458] c04 N78-17031

SUBJECT INDEX

COMPUTER COMPONENTS

Computer circuit performing both counting and shifting logic operations also capable of miniaturization and integration in basic circuits
[NASA-CASE-XNP-01753] c08 N71-22897

Binary to binary coded decimal converter
[NASA-CASE-GSC-12044-1] c60 N78-17691

COMPUTER DESIGN

Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751

COMPUTER GRAPHICS

System for digitizing graphic displays
[NASA-CASE-NPO-10745] c08 N72-22164

COMPUTER PROGRAMMING

Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917

Priority interrupt system --- comprised of four registers
[NASA-CASE-NPO-13067-1] c60 N76-18800

COMPUTER PROGRAMS

Self testing and repairing computer comprising control and diagnostic unit and rollback points for error correction
[NASA-CASE-NPO-10567] c08 N71-24633

Development of computer program for estimating reliability of self-repair and fault-tolerant systems with respect to selected system and mission parameters
[NASA-CASE-NPO-13086-1] c15 N73-12495

Development of flight simulator system to show position of joystick displacement
[NASA-CASE-NPO-11497] c08 N73-25206

COMPUTER STORAGE DEVICES

Magnetic matrix memory system for nondestructive reading of information contained in matrix
[NASA-CASE-XNP-05835] c08 N71-12504

Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-XNP-05415] c08 N71-12505

Pulsed magnetic core memory element with blocking oscillator feedback for interrogation without loss of digital information
[NASA-CASE-XGS-03303] c08 N71-18595

Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
[NASA-CASE-XNP-01318] c10 N71-23033

Time division multiplexed telemetry transmitting system controlled by programmed memory
[NASA-CASE-GSC-10131-1] c07 N71-24624

Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NPO-10150] c08 N71-24650

Digital memory system with multiple switch cores for driving each word location
[NASA-CASE-XNP-01466] c10 N71-26434

Redundant memory for enhanced reliability of digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135

Memory device employing semiconductor and ferroelectric properties of single crystal barium titanate
[NASA-CASE-ERC-10307] c08 N72-21198

Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

COMPUTER SYSTEMS DESIGN

Adaptive voting computer system
[NASA-CASE-HSC-13932-1] c62 N74-14920

Computer interface system
[NASA-CASE-NPO-13428-1] c60 N77-12721

COMPUTER TECHNIQUES

Automated system for identifying traces of organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245

Apparatus for determining thermophysical properties of test specimens
[NASA-CASE-LAR-11883-1] c09 N77-27131

Computerized system for translating a torch head
[NASA-CASE-NFS-23620-1] c37 N79-10421

COMPUTERIZED SIMULATION

Integrated time shared instrumentation display for aerospace vehicle simulators
[NASA-CASE-XLA-01952] c08 N71-12507

SUBJECT INDEX

CONTACT RESISTANCE

- Microcomputerized electric field meter, diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c35 N78-28411
- Simulator method and apparatus for practicing the mating of an observer-controlled object with a target
[NASA-CASE-MFS-23052-2] c74 N79-13855
- COMPUTERS**
- Telemetry data unit to form multibit words for use between demodulator and computer
[NASA-CASE-IXP-09225] c09 N69-24333
- Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288
- Communication between computers using two identical communications links
[NASA-CASE-NPO-11161] c08 N72-25207
- CONCAVITY**
- Concave grating spectrometer for use in near and vacuum ultraviolet regions
[NASA-CASE-XGS-01036] c14 N70-40003
- Diffraction grating configuration for X-ray and ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N78-32857
- CONCENTRATION (COMPOSITION)**
- Method and automated apparatus for detecting coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588
- CONCENTRATORS**
- Concentrator device for controlling direction of solar energy onto energy converters
[NASA-CASE-XLE-01716] c09 N70-40234
- Thermostatically controlled non-tracking type solar energy concentrator
[NASA-CASE-NPO-13497-1] c44 N76-14602
- Three-dimensional tracking solar energy concentrator and method for making same
[NASA-CASE-NPO-13736-1] c44 N77-32583
- An improved solar cell module
[NASA-CASE-NPO-14467-1] c44 N79-10529
- Non-tracking solar energy collector system
[NASA-CASE-NPO-13817-1] c44 N79-11471
- CONDENSATES**
- Apparatus for determining volatile condensable material present in polymeric products
[NASA-CASE-IXP-09699] c06 N71-24607
- Condensate removal device for heat exchanger
[NASA-CASE-MSC-14143-1] c77 N75-20139
- CONDENSERS (LIQUIFIERS)**
- Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465
- Condensate removal device for heat exchanger
[NASA-CASE-MSC-14143-1] c77 N75-20139
- CONDUCTING FLUIDS**
- Multiducted electromagnetic pump for conductive liquids
[NASA-CASE-NPO-10755] c15 N71-27084
- Internally supported flexible duct joint --- device for conducting fluids in high pressure systems
[NASA-CASE-MFS-19193-1] c37 N75-19686
- CONDUCTIVE HEAT TRANSFER**
- Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156
- Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
[NASA-CASE-XMS-09571] c05 N71-19439
- Compact pulsed laser having improved heat conductance
[NASA-CASE-NPO-13147-1] c36 N77-25502
- CONDUCTORS**
- Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
[NASA-CASE-IXP-07587] c15 N71-18701
- Method for making conductors for ferrite memory arrays --- from pre-formed metal conductors
[NASA-CASE-LAR-10994-1] c24 N75-13032
- CONES**
- Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-IXP-09701] c14 N71-26475
- CONFINEMENT**
- Observation window for internal gas confining chamber
- [NASA-CASE-NPO-10890] c11 N73-12265
- CONICAL BODIES**
- Conical valve plug for use with reactive cryogenic fluids
[NASA-CASE-XLE-00715] c15 N70-34859
- Conical reflector antenna with feed approximating line source
[NASA-CASE-NPO-10303] c07 N72-22127
- Characteristics of microwave antenna with conical reflectors to generate plane wave front
[NASA-CASE-NPO-11661] c07 N73-14130
- CONICAL SCANNING**
- Conical scan tracking system employing a large antenna
[NASA-CASE-NPO-14009-1] c32 N79-13214
- CONICAL SHELLS**
- Capacitance measuring device for determining flare accuracy on tapered tubes
[NASA-CASE-IXS-03495] c14 N69-39785
- Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580
- Rotary spindle lathe attachments for machining geometrical cones
[NASA-CASE-IXS-04292] c15 N71-22722
- CONNECTIVE TISSUE**
- Subcutaneous channeling probe
[NASA-CASE-ABC-11091-1] c52 N79-11684
- CONNECTORS**
- Expanding and contracting connector strip for solar cell array of Nimbus satellite
[NASA-CASE-XGS-01395] c03 N69-21539
- Design and development of quick release connector
[NASA-CASE-XLA-01141] c15 N71-13789
- Development and characteristics of strainer for flared tube fitting
[NASA-CASE-XLA-05056] c15 N72-11389
- Process for making RF shielded cable connector assemblies and resulting structures
[NASA-CASE-GSC-11215-1] c09 N73-28083
- Low heat leak connector for cryogenic system
[NASA-CASE-XLE-02367-1] c31 N79-21225
- CONSCIOUSNESS**
- Development of apparatus and method for quantitatively measuring brain activity as automatic indication of sleep state and level of consciousness
[NASA-CASE-MSC-13282-1] c05 N71-24729
- CONSTANTS**
- Spring operated accelerator and constant force spring mechanism therefor
[NASA-CASE-ABC-10898-1] c35 N77-18417
- CONSTRAINTS**
- Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694
- Cable guide and restraint device for reefing tubes in uniform manner
[NASA-CASE-LAR-10129-1] c15 N73-25512
- Development of restraint system for securing personnel to ergometer while exercising under weightless conditions
[NASA-CASE-MFS-21046-1] c14 N73-27377
- Reefing system
[NASA-CASE-LAR-10129-2] c37 N74-20063
- Restraining mechanism
[NASA-CASE-MSC-13054] c54 N78-17677
- CONSTRUCTION**
- Method of construction of a multi-cell solar array
[NASA-CASE-MFS-23540-1] c44 N78-17468
- CONSTRUCTION MATERIALS**
- Apparatus and method of assembling building blocks by folding pre-cut flat sheets of material during on-site construction
[NASA-CASE-MSC-12233-1] c15 N72-25454
- Development of construction block in form of container folded from flat sheet and filled with solid material for architectural purposes
[NASA-CASE-MSC-12233-2] c32 N73-13921
- CONTACT POTENTIALS**
- Lightweight, rugged, inexpensive satellite battery for producing electrical power from ionosphere using electrodes with different contact potentials
[NASA-CASE-XGS-01593] c03 N70-35408
- CONTACT RESISTANCE**
- Bearing material

CONTAINERLESS BELTS

SUBJECT INDEX

[NASA-CASE-LEW-11930-3] c24 N77-32249
CONTAINERLESS BELTS

Method of crystallization --- in gravity-free environments

[NASA-CASE-NPS-23001-1] c76 N77-32919

CONTAINERS

Manufacture of fluid containers from fused coated polyester sheets having resealable septum

[NASA-CASE-NPO-10123] c15 N71-24835

Method for locating leaks in hermetically sealed containers

[NASA-CASE-ERC-10045] c15 N71-24910

Quantitative liquid measurements in container by resonant frequencies

[NASA-CASE-XNP-02500] c18 N71-27397

CONTAMINANTS

Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention

[NASA-CASE-XNS-01905] c12 N71-21089

CONTAMINATION

Emission spectroscopy method for contamination monitoring of inert gas metal arc welding

[NASA-CASE-XNP-02039] c15 N71-15871

Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing

[NASA-CASE-XGS-01971] c15 N71-15922

Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions

[NASA-CASE-NPO-10070] c15 N71-27372

Portable tester for monitoring bacterial contamination by adenosine triphosphate light reaction

[NASA-CASE-GSC-10879-1] c14 N72-25413

Biocontamination and particulate detection system

[NASA-CASE-NPO-13953-1] c51 N78-22587

CONTINUOUS RADIATION

CW ultrasonic bolt tensioning monitor

[NASA-CASE-LAR-12016-1] c39 N78-15512

Pseudo continuous wave instrument --- ultrasonics

[NASA-CASE-LAR-12260-1] c35 N79-10390

CONTINUOUS WAVE LASERS

High power laser apparatus and system

[NASA-CASE-XLE-2529-2] c36 N75-27364

Continuous plasma laser --- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma

[NASA-CASE-XNP-04167-3] c36 N77-19416

CONTINUOUS WAVE RADAR

Phase locked loop with sideband rejecting properties in continuous wave tracking radar

[NASA-CASE-XNP-02723] c07 N70-41680

FM/CW radar system

[NASA-CASE-NPS-22234-1] c32 N79-10264

CONTOURS

Describing device for surveying contour of surface using X-Y plotter and traveling transducer

[NASA-CASE-XLA-08646] c14 N71-17586

Processing system for semiperiodic electrical signals to produce real time contoured display

[NASA-CASE-HSC-13407-1] c10 N72-20225

Variable contour securing system

[NASA-CASE-HSC-16270-1] c37 N78-27423

Device for measuring the contour of a surface

[NASA-CASE-LAR-11869-1] c74 N78-27904

Cork-resin ablative insulation for complex surfaces and method for applying the same

[NASA-CASE-NPS-23626-1] c24 N78-32190

Contour detector and data acquisition system for the left ventricular outline

[NASA-CASE-ARC-10985-1] c52 N79-10724

CONTROL

Valve assembly for controlling simultaneously more than one fluid flow, and having stable qualities under loads

[NASA-CASE-XNS-05890] c09 N71-23191

Control system for pressure balance device used in calibrating pressure gages

[NASA-CASE-XNP-04134] c14 N71-23755

Failure detection and control means for improved drift performance of a gimbaled platform system

[NASA-CASE-NPS-23551-1] c04 N76-26175

CONTROL BOARDS

Ionization control system design for monitoring separately located ion gage pressures on

vacuum chambers

[NASA-CASE-XLE-00787]

c14 N71-21090

CONTROL DATA (COMPUTERS)

Computer interface system

[NASA-CASE-NPO-13428-1]

c60 N77-12721

CONTROL EQUIPMENT

Stepping motor control apparatus exciting

windings in proper time sequence to cause

motor to rotate in either direction

[NASA-CASE-GSC-10366-1]

c10 N71-18772

Voltage drift compensation circuit for

analog-to-digital converter

[NASA-CASE-XNP-04780]

c08 N71-19687

Development of attitude control system for

vertical takeoff aircraft using reaction

nozzles displaced from various axes of aircraft

[NASA-CASE-XAC-08972]

c02 N71-20570

Device for controlling rotary potentiometer

mounted on aircraft steering wheel or aileron

control

[NASA-CASE-XAC-10019]

c15 N71-23809

Controlled release device for use in launching

rockets or missiles

[NASA-CASE-XKS-03338]

c15 N71-24043

Circuits for controlling reversible dc motor

[NASA-CASE-XNP-07477]

c09 N71-26092

Digital memory system with multiple switch cores

for driving each word location

[NASA-CASE-XNP-01466]

c10 N71-26434

Fluid control jet amplifiers

[NASA-CASE-XLE-09341]

c12 N71-28741

System for control of variable signal generator

[NASA-CASE-NPO-11064]

c07 N72-11150

Solid state remote circuit selector switching

circuit

[NASA-CASE-LEW-10387]

c09 N72-22201

Development of device for simulating charge and

discharge cycle of battery in synchronous orbit

[NASA-CASE-GSC-11211-1]

c03 N72-25020

Bridge-type gain control circuit

[NASA-CASE-GSC-10786-1]

c10 N72-28241

Interferometer prism and control system for

precisely determining direction to remote

light source

[NASA-CASE-ARC-10278-1]

c14 N73-25463

Digital controller for a Bann folding machine

--- providing automatic counting and machine

shutoff

[NASA-CASE-LAR-10688-1]

c37 N74-21056

Flow control valve --- for high temperature fluids

[NASA-CASE-NPO-11951-1]

c37 N74-21065

Variable ratio mixed-mode bilateral master-slave

control system for shuttle remote manipulator

system

[NASA-CASE-HSC-14245-1]

c18 N75-27041

Anthropomorphic master/slave manipulator system

[NASA-CASE-ARC-10756-1]

c54 N77-32721

Power factor control system for AC induction

motors

[NASA-CASE-NPS-23280-1]

c33 N78-10376

Variable cycle gas turbine engines

[NASA-CASE-LEW-12916-1]

c37 N78-17384

End effector device --- for manipulators

[NASA-CASE-NPS-23692-1]

c54 N78-19773

Control for nuclear thermionic power source

[NASA-CASE-NPO-13114-2]

c73 N78-28913

Dual acting slit control mechanism

[NASA-CASE-LAR-11370-1]

c35 N78-32399

Pneumatic inflatable end effector

[NASA-CASE-NPS-23696-1]

c54 N78-32724

Illumination control apparatus for compensating

solar light

[NASA-CASE-KSC-11010-1]

c74 N79-12890

Compensating linkage for main rotor control

[NASA-CASE-LAR-11797-1]

c08 N79-15057

CONTROL ROCKETS

Unit for generating thrust from catalytic

decomposition of hydrogen peroxide, for high

altitude aircraft or spacecraft reaction control

[NASA-CASE-XNS-00583]

c28 N70-38504

CONTROL RODS

Nuclear reactor control rod assembly with

improved driving mechanism

[NASA-CASE-XLE-00298]

c22 N70-34501

Manual control mechanism for adjusting control

rod to null position

[NASA-CASE-XLA-01808]

c15 N71-20740

CONTROL STABILITY

Design and development of active control system

SUBJECT INDEX

COOLING SYSTEMS

- for air cushion vehicle to reduce or eliminate effects of excessive vertical vibratory acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
- CONTROL SURFACES**
Conical valve plug for use with reactive cryogenic fluids
[NASA-CASE-XLR-00715] c15 N70-34859
Attitude control system for spacecraft based on conversion of incident solar radiation on movable control surfaces into mechanical torques
[NASA-CASE-XNP-02982] c31 N70-41855
Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N79-14108
- CONTROL UNITS (COMPUTERS)**
Self testing and repairing computer comprising control and diagnostic unit and rollback points for error correction
[NASA-CASE-NPO-10567] c08 N71-24633
- CONTROL VALVES**
Electromechanical actuator and its use in rocket thrust control valve
[NASA-CASE-XNP-05975] c15 N69-23185
Multiple orifice fluid flow control valve to provide different flow patterns
[NASA-CASE-ERC-10208] c15 N70-10867
Conical valve plug for use with reactive cryogenic fluids
[NASA-CASE-XLR-00715] c15 N70-34859
Control valve and coaxial variable injector for controlling bipropellant mixture ratio and flow
[NASA-CASE-XNP-09702] c15 N71-17654
Control valve for switching main stream of fluid from one stable position to another by means of electrohydrodynamic forces
[NASA-CASE-NPO-10416] c12 N71-27332
Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-NPO-10808] c15 N71-27432
Dual stage check valve for cryogenic supply systems used in space flight environmental control system
[NASA-CASE-MSC-13587-1] c15 N73-30459
Airflow control system for supersonic inlets
[NASA-CASE-LEW-11188-1] c02 N74-20646
Ultrasonically bonded valve assembly
[NASA-CASE-NPO-13360-1] c37 N75-25185
Pressure modulating valve
[NASA-CASE-MSC-14905-1] c37 N77-28487
Fluid valve assembly
[NASA-CASE-MSC-12731-1] c37 N78-25426
- CONTROLLED ATMOSPHERES**
Rectangular electric conductors for conductor cables to withstand spacecraft vibration and controlled atmosphere
[NASA-CASE-MFS-14741] c09 N70-20737
High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-MSC-12178-1] c09 N71-13518
System for continuous monitoring of exhalations, weighing, and cage cleaning for animal exposed to controlled atmosphere for toxic study
[NASA-CASE-XAC-05333] c11 N71-22875
- CONTROLLERS**
Unitary three-axis controller for flight vehicles within or outside atmosphere
[NASA-CASE-XPR-00181] c21 N70-33279
Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XPR-04104] c03 N70-42073
Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255
Solid state controller three axes controller
[NASA-CASE-MSC-12394-1] c08 N74-10942
Active nutation controller
[NASA-CASE-GSC-12273-1] c18 N78-23141
Wide power range microwave feedback controller
[NASA-CASE-GSC-12146-1] c33 N78-32340
Controller for computer control of brushless DC motors
[NASA-CASE-NPO-13970-1] c33 N79-20315
- CONVECTIVE FLOW**
Design and development of device to prevent geysering during convective circulation of cryogenic fluids
[NASA-CASE-KSC-10615] c15 N73-12486
- CONVECTIVE HEAT TRANSFER**
Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels
[NASA-CASE-NPO-10617-1] c35 N74-22095
- CONVERGENCE**
Electrical device for developing converging spherical shock waves
[NASA-CASE-MFS-20890] c14 N72-22439
- CONVERGENT NOZZLES**
Nozzle extraction process and handmeter for measuring handle
[NASA-CASE-LAR-12147-1] c31 N79-11246
- CONVERGENT-DIVERGENT NOZZLES**
Gimbaled partially submerged nozzle for solid propellant rocket engines for providing directional control
[NASA-CASE-XNP-01544] c28 N70-34162
Regenerative cooling system for rocket combustion chamber using coolant tubes in convergent-divergent nozzle
[NASA-CASE-XLR-04857] c28 N71-23968
- CONVERTERS**
Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391
- COOLANTS**
Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
[NASA-CASE-XLR-00724] c14 N70-34669
- COOLING**
Microwave power receiving antenna solving heat dissipation problems by construction of elements as heat pipe devices
[NASA-CASE-MFS-20333] c09 N71-13486
Dissipative voltage regulator system for minimizing heat dissipation
[NASA-CASE-GSC-10891-1] c10 N71-26626
Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440
Compact pulsed laser having improved heat conductance
[NASA-CASE-NPO-13147-1] c36 N77-25502
- COOLING SYSTEMS**
Automatic thermal switch for improving efficiency of cooling gases below 40 K
[NASA-CASE-XNP-03796] c23 N71-15467
Differential thermopile for measuring cooling water temperature rise
[NASA-CASE-XAC-00812] c14 N71-15598
Electric power system with circulatory liquid coolant cooling system
[NASA-CASE-MFS-14114-2] c09 N71-24807
Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654
Development and characteristics of natural circulation radiator for use with nuclear power plants installed in lunar space stations
[NASA-CASE-XHQ-03673] c33 N71-29046
Development and characteristics of cooling system to maintain temperature of rack mounted electronic modules
[NASA-CASE-MSC-12389] c33 N71-29052
Development of method for cooling high temperature wall members with cooling medium having high heat absorption capability
[NASA-CASE-HQN-00938] c33 N71-29053
Apparatus for liquid spray cooling of turbine blades
[NASA-CASE-XLR-00027] c33 N71-29152
Radial heat flux transformer for use in heating and cooling processes
[NASA-CASE-NPO-10828] c33 N72-17948
Light shield and cooling apparatus --- high intensity ultraviolet lamp
[NASA-CASE-LAR-10089-1] c34 N74-23066
Refrigerated coaxial coupling --- for microwave equipment
[NASA-CASE-NPO-13504-1] c33 N75-30430
Rocket chamber and method of making
[NASA-CASE-LEW-11118-2] c20 N76-14191
Auxiliary power system for activity cooled aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332

COORDINATES

SUBJECT INDEX

Tubular sublimatory evaporator heat sink
[NASA-CASE-ARC-10912-1] c34 N77-19353

Arc control in compact arc lamps
[NASA-CASE-NPO-10870-1] c33 N77-22386

Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106

Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467

Closed loop spray cooling apparatus --- for
particle accelerator targets
[NASA-CASE-LEW-11981-1] c31 N78-17237

Multistation refrigeration system
[NASA-CASE-NPO-13839-1] c31 N78-25256

Cooling system for removing metabolic heat from
an hermetically sealed spacesuit
[NASA-CASE-ARC-11059-1] c50 N78-32721

Heat exchanger --- rocket combustion chambers
and cooling systems
[NASA-CASE-LEW-12252-1] c34 N79-13288

Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-2] c34 N79-20336

COORDINATES

Mechanical coordinate converter for use with
spacecraft tracking antennas
[NASA-CASE-XNP-00614] c14 N70-36907

System for locating lightning strokes by
coordination of directional antenna signals
[NASA-CASE-KSC-10729-1] c09 N73-32110

Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056

COPOLYMERS

Method for producing alternating ether-siloxane
copolymers with stable properties when exposed
to elevated temperatures and UV radiation
[NASA-CASE-XNP-02584] c06 N71-20905

Preparation of dicyanoacetylene and vinylidene
copolymers using organic compounds
[NASA-CASE-XNP-03250] c06 N71-23500

COPPER

Development of method for etching copper
[NASA-CASE-IGS-06306] c17 N71-16044

Method of plating copper on aluminum to permit
conventional soldering of structural aluminum
bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903

Brazing alloy composition
[NASA-CASE-XNP-06053] c26 N75-27126

Method for making an aluminum or copper
substrate panel for selective absorption of
solar energy
[NASA-CASE-NFS-23518-1] c44 N79-11869

COPPER ALLOYS

Zirconium modified nickel-copper alloy
[NASA-CASE-LEW-12245-1] c26 N77-20201

COPPER COMPOUNDS

Gallium arsenide solar cell preparation by
surface deposition of cuprous iodide on thin
n-type polycrystalline layers and heating in
iodine vapor
[NASA-CASE-XNP-01960] c09 N71-23027

Cooling and radiation protection of ruby lasers
using copper sulfate solution in alcohol
[NASA-CASE-NFS-20180] c16 N72-12440

Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127

COPPER FLUORIDES

Method to produce high purity copper fluoride by
heating copper hydroxyfluoride powder and
subjecting to flowing fluorine gas
[NASA-CASE-LEW-10794-1] c06 N72-17093

CORDAGE

Fabrication of root cord restrained fabric suit
sections from sheets of fabric
[NASA-CASE-NSC-12398] c05 N72-20098

CORE STORAGE

Memory device employing semiconductor and
ferroelectric properties of single crystal
barium titanate
[NASA-CASE-ERC-10307] c08 N72-21198

CORES

Method of making rolling element bearings
[NASA-CASE-LEW-11087-2] c37 N74-15128

Electromagnetic transducer recording head having
a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392

CORK (MATERIALS)

Cork-resin ablative insulation for complex
surfaces and method for applying the same
[NASA-CASE-NFS-23626-1] c24 N78-32190

CORRECTION

Doppler frequency shift correction device for
multiplex communication with Applications
Technology Satellites
[NASA-CASE-IGS-02749] c07 N69-39978

CORRELATION DETECTION

Correlation type phase detector --- with time
correlation integrator for frequency
multiplexed signals
[NASA-CASE-GSC-11744-1] c33 N75-26243

Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266

CORRELATORS

Synchronous detection system for detecting weak
radio astronomical signals
[NASA-CASE-XNP-09832] c30 N71-23723

Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267

CORROSION PREVENTION

Vapor deposited laminated nitride-silicon
coating for corrosion prevention of
carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075

Method to prevent stress corrosion cracking in
titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393

Method and apparatus for inducing compressive
stresses in pressure vessel to prevent stress
corrosion
[NASA-CASE-XLA-07390] c15 N71-18616

Development of fluoride coating to prevent
oxidation of beryllium surfaces at elevated
temperatures
[NASA-CASE-LEW-10327] c17 N71-33408

Prevention of hydrogen embrittlement of high
strength steel by hydrazine compositions ---
by adding potassium hydroxide to hydrazine
[NASA-CASE-NPO-12122-1] c24 N76-14203

Ozonation of cooling tower waters
[NASA-CASE-NPO-14340-1] c25 N79-10167

CORROSION RESISTANCE

High strength, corrosion resistant cobalt-based
alloys for aerospace structures
[NASA-CASE-XLE-00726] c17 N71-15644

Hydrazine monoperfluoro alkanoate solder flux
leaving corrosion resistant coating, for
metals such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688

High temperature cobalt-base alloy resistant to
corrosion by liquid metals and to sublimation
in vacuum environment
[NASA-CASE-XLE-02991] c17 N71-16025

Metal soldering with hydrazine monoperfluoro
alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078

Improved nozzle for use with abrasive and/or
corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17866

COSINE SERIES

Service life of electromechanical device for
generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248

Function generators for producing complex
vibration mode patterns used to identify
vibration mode data
[NASA-CASE-LAR-10310-1] c10 N73-20253

COSMIC DUST

Sensor for detecting and measuring energy,
velocity and direction of travel of a cosmic
dust particle
[NASA-CASE-GSC-10503-1] c14 N72-20381

System for detecting impact position of cosmic
dust on detector surface
[NASA-CASE-GSC-11291-1] c25 N72-33696

Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331

Cosmic dust analyzer
[NASA-CASE-NSC-13802-2] c35 N76-15431

COST ANALYSIS

Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460

COUCHES

Shock absorbing couch for body support under
high acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152

Low onset rate energy absorber in form of strut
assembly for crew couch of Apollo command module
[NASA-CASE-NSC-12279-1] c15 N70-35679

SUBJECT INDEX

CROSSED FIELDS

- Shock absorbing articulated multiple couch assembly
[NASA-CASE-MSC-11253] c05 N71-12343
- Collapsible couch system for manned space vehicles
[NASA-CASE-MSC-13140] c05 N72-11085
- Coulometers**
Alkaline-type coulometer cell for primary charge control in secondary battery recharge circuits
[NASA-CASE-XGS-05434] c03 N71-20491
- Development and characteristics of battery charging circuits with coulometer for control of available current
[NASA-CASE-GSC-10487-1] c03 N71-24719
- Counters**
Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
- Electronic strain level counter on in-flight aircraft
[NASA-CASE-LAR-10756-1] c32 N73-26910
- Counting Circuits**
Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432
- Design of transistorized ring counter circuit with special steering and triggering circuits
[NASA-CASE-XGS-03095] c09 N69-27463
- Counter-divider circuit for accuracy and reliability in binary circuits
[NASA-CASE-XMF-00421] c09 N70-34502
- Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
- Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
[NASA-CASE-XLE-01246] c14 N71-10797
- Electronic counter circuit utilizing magnetic core and low power consumption
[NASA-CASE-XNP-08836] c09 N71-12515
- Synchronous counter design incorporating cascaded binary stages driven by previous stages and inputs through NAND gates
[NASA-CASE-XGS-02440] c08 N71-19432
- Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
- Computer circuit performing both counting and shifting logic operations also capable of miniaturization and integration in basic circuits
[NASA-CASE-XNP-01753] c08 N71-22897
- Noninterruptible digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
- Frequency measurement by coincidence detection with standard frequency
[NASA-CASE-MSC-18649-1] c33 N76-16331
- Coupled Modes**
Dual mode solid state power switch
[NASA-CASE-MFS-22880-1] c33 N76-31410
- Coupling**
Coupling device for linear shaped charge for space vehicle abort system
[NASA-CASE-XLA-00189] c33 N70-36846
- Base support for expansible and contractible coupling between two members
[NASA-CASE-NPO-11059] c15 N72-17454
- A prosthesis coupling
[NASA-CASE-KSC-11069-1] c54 N78-22721
- Coupling Circuits**
Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547
- Antenna array at focal plane of reflector with coupling network for beam switching
[NASA-CASE-GSC-10220-1] c07 N71-27233
- Phase modulator with tuned variable length electrical lines including coupling and varactor diode circuits
[NASA-CASE-MSC-13201-1] c07 N71-28429
- High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
- Automatic quadrature control and measuring system --- using optical coupling circuitry
[NASA-CASE-MFS-21660-1] c35 N74-21017
- Diode-quadr bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520
- Couplings**
Releasable coupling device designed to receive and retain matching ends of electrical connectors
[NASA-CASE-XMS-07846-1] c09 N69-21927
- Stage separation using remote control release of joint with explosive insert
[NASA-CASE-XLA-02854] c15 N69-27490
- Space vehicle stage coupling and quick release separation mechanism
[NASA-CASE-XLA-01441] c15 N70-41679
- Standard coupling design for mass production
[NASA-CASE-XMS-02532] c15 N70-41808
- Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
- Ratchet mechanism for high speed operation at reduced backlash
[NASA-CASE-MFS-12805] c15 N71-17805
- Split nut and bolt separation device
[NASA-CASE-XNP-06914] c15 N71-21489
- Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-MFS-20395] c15 N71-24903
- Coupling arrangement for isolating torque loads from axial, radial, and bending loads
[NASA-CASE-XLA-04897] c15 N72-22482
- Refrigerated coaxial coupling --- for microwave equipment
[NASA-CASE-NPO-13504-1] c33 N75-30430
- Opto-mechanical subsystem with temperature compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366
- Coupling device for moving vehicles
[NASA-CASE-GSC-12322-1] c37 N78-25429
- Belt for coupling driven members
[NASA-CASE-GSC-12276-1] c37 N78-32429
- A coupling device for moving vehicles
[NASA-CASE-GSC-12429-1] c37 N79-19364
- Coverings**
Apparatus for ejecting covers of instrument packages using differential pressure principle
[NASA-CASE-XMF-04132] c15 N69-27502
- Cracking (Fracturing)**
Method to prevent stress corrosion cracking in titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393
- TV fatigue crack monitoring system
[NASA-CASE-LAR-11490-1] c39 N78-16387
- Crash Landing**
Aircraft-mounted crash-activated transmitter device
[NASA-CASE-MFS-16609-3] c03 N76-32140
- Crashes**
Battery powered aircraft crash locator transmitter
[NASA-CASE-MFS-16609] c14 N72-21431
- Creep Rupture Strength**
Nickel base alloy with resistance to oxidation at high temperatures and superior stress-rupture properties
[NASA-CASE-XLE-02082] c17 N71-16026
- Criteria**
High performance ammonium nitrate propellant
[NASA-CASE-NPO-14260] c28 N78-17230
- Critical Experiments**
Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372
- Critical Temperature**
Stable superconducting magnet --- high current levels below critical temperature
[NASA-CASE-XMF-05373-1] c33 N79-21264
- Cross Correlation**
Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395
- Cross Polarization**
Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154
- Crossed Fields**
Crossed-field plasma accelerator for laboratory simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267

CROSSLINKING

SUBJECT INDEX

Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields
 [NASA-CASE-XLE-00212] c03 N70-34134
 Crossed field MHD plasma generator-accelerator
 [NASA-CASE-XLA-03374] c25 N71-15562

CROSSLINKING
 New trifunctional alcohol derived from trimer acid and novel method of preparation
 [NASA-CASE-NPO-10714] c06 N69-31244
 Trimerization of aromatic nitriles
 [NASA-CASE-LEW-12053-1] c27 N78-15276
 Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
 [NASA-CASE-ARC-11008-1] c27 N78-31232
 Method of cross-linking polyvinyl alcohol and other water soluble resins
 [NASA-CASE-LEW-13103-1] c25 N79-14172
 Cross-linked polyvinyl alcohol and method of making same --- separator for alkaline batteries
 [NASA-CASE-LEW-13101-1] c25 N79-14173
 In-situ cross-linking of polyvinyl alcohol --- polymeric films for separators in alkaline batteries
 [NASA-CASE-LEW-13135-1] c25 N79-14174

CRUCIBLES
 Evaporating crucible of tantalum-tungsten foil, nickel alumina bonding agent, and ceramic coating
 [NASA-CASE-XLA-03105] c15 N69-27483

CRUDE OIL
 Decontamination of petroleum products with honey
 [NASA-CASE-XNP-03835] c06 N71-23499

CRUSTAL FRACTURES
 System for near real-time crustal deformation monitoring
 [NASA-CASE-NPO-14124-1] c46 N78-17529

CRYOGENIC EQUIPMENT
 Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
 [NASA-CASE-NPO-10309] c15 N69-23190
 Low thermal loss piping arrangement for moving cryogenic media through double chamber structure
 [NASA-CASE-XNP-08882] c15 N69-39935
 Method and apparatus for removing plastic insulation from wire using cryogenic equipment
 [NASA-CASE-NFS-10340] c15 N71-17628
 Dual solid cryogenics for spacecraft refrigeration insuring low temperature cooling for extended periods
 [NASA-CASE-GSC-10188-1] c23 N71-24725
 Reliability of automatic refilling valving device for cryogenic liquid systems
 [NASA-CASE-NPO-11177] c15 N72-17453
 Dual stage check valve for cryogenic supply systems used in space flight environmental control system
 [NASA-CASE-MSC-13587-1] c15 N73-30459
 Heat operated cryogenic electrical generator
 [NASA-CASE-NPO-13303-1] c20 N75-24837
 Insulation for piping
 [NASA-CASE-MSC-19523-1] c31 N76-16245
 Cryostat system for temperatures on the order of 2 deg K or less
 [NASA-CASE-NPO-13459-1] c31 N77-10229
 Device for tensioning test specimens within an hermetically sealed chamber
 [NASA-CASE-NFS-23281-1] c35 N77-22450
 Shock isolator for operating a diode laser and closed-cycle refrigerator
 [NASA-CASE-GSC-12297-1] c37 N78-19515
 Multistation refrigeration system
 [NASA-CASE-NPO-13839-1] c31 N78-25256
 System for and method of freezing biological tissue
 [NASA-CASE-GSC-12173-1] c51 N79-10694

CRYOGENIC FLUID STORAGE
 Apparatus for cryogenic liquid storage with heat transfer reduction and for liquid transfer at zero gravity conditions
 [NASA-CASE-XLE-00385] c15 N70-38020
 Cryogenic storage system for gases onboard spacecraft
 [NASA-CASE-XNS-04390] c31 N70-41871
 Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin
 [NASA-CASE-XLA-01967] c31 N70-42015

Fabrication of filament wound propellant tank for cryogenic storage
 [NASA-CASE-XLE-03803-2] c15 N71-17651
 Prefabricated multilayered self-evacuating insulation panels using gas with low vapor pressure at cryogenic temperatures for application to storage of cryogenics
 [NASA-CASE-XLE-04222] c23 N71-22881
 Multilayer insulation panels for cryogenic liquid containers
 [NASA-CASE-NFS-14023] c33 N71-25351
 Development of thermal insulation material for insulating liquid hydrogen tanks in spacecraft
 [NASA-CASE-XNP-05046] c33 N71-28892
 Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
 [NASA-CASE-KSC-10622-1] c31 N72-21893
 Heater-mixer for stored fluids
 [NASA-CASE-ARC-10442-1] c35 N74-15093
 Cryogenic container compound suspension strap
 [NASA-CASE-ARC-11157-1] c31 N79-18087
 Low heat leak connector for cryogenic system
 [NASA-CASE-XLE-02367-1] c31 N79-21225

CRYOGENIC FLUIDS
 Cryogenic flux-gated magnetometer using superconductors
 [NASA-CASE-XAC-02407] c14 N69-27423
 Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
 [NASA-CASE-XLE-00288] c15 N70-34247
 Conical valve plug for use with reactive cryogenic fluids
 [NASA-CASE-XLE-00715] c15 N70-34859
 Two component valve assembly for cryogenic liquid transfer regulation
 [NASA-CASE-XLE-00397] c15 N70-36492
 Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
 [NASA-CASE-XLE-00688] c14 N70-41330
 Leakproof soft metal seal for use in very high vacuum systems operating at cryogenic temperatures
 [NASA-CASE-XGS-02441] c15 N70-41629
 High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
 [NASA-CASE-XLE-02998] c14 N70-42074
 Automatic thermal switch for improving efficiency of cooling gases below 40 K
 [NASA-CASE-XNP-03796] c23 N71-15467
 Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
 [NASA-CASE-XLE-00586] c15 N71-15968
 Development of apparatus for measuring thermal conductivity
 [NASA-CASE-XGS-01052] c14 N71-15992
 Method and apparatus for producing fine particles in cryogenic liquid bath for gelled rocket propellants
 [NASA-CASE-NPO-10250] c23 N71-16212
 Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature
 [NASA-CASE-XLE-02823] c09 N71-23443
 Flow angle sensor and remote readout system for use with cryogenic fluids
 [NASA-CASE-XLE-04503] c14 N71-24864
 Design and development of device to prevent geysering during convective circulation of cryogenic fluids
 [NASA-CASE-KSC-10615] c15 N73-12486
 Magnetocaloric pump --- for cryogenic fluids
 [NASA-CASE-LEW-11672-1] c37 N74-27904
 Cryogenic liquid sensor
 [NASA-CASE-NPO-10619-1] c35 N77-21393

CRYOGENIC GYROSCOPES
 Cryogenic gyroscope housing --- with annular disks for gas spin-up
 [NASA-CASE-NFS-21136-1] c35 N74-18323

CRYOGENIC MAGNETS
 Improved alternator with windings of superconducting materials acting as permanent magnet
 [NASA-CASE-XLE-02824] c03 N69-39890

CRYOGENIC ROCKET PROPELLANTS
 Quick-release coupling for fueling rocket

SUBJECT INDEX

CURRENT DISTRIBUTION

- vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
- Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802
- Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNF-04731] c15 N71-24042
- CRYOGENIC STORAGE**
- Light weight plastic foam thermal insulation for cryogenic storage
[NASA-CASE-XLE-02647] c18 N71-23658
- Development of foam insulation for filament wound cryogenic storage tank
[NASA-CASE-XLE-03803] c15 N71-23816
- CRYOGENICS**
- High strength aluminum casting alloy for cryogenic applications in aerospace engineering
[NASA-CASE-XMF-02786] c17 N71-20743
- Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654
- Germanium coated microbridge and method
[NASA-CASE-MFS-23274-1] c33 N78-13320
- Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures
[NASA-CASE-NPO-14254-1] c36 N78-22359
- CRYOLITE**
- Ultraviolet filter of thorium fluoride and cryolite on quartz base
[NASA-CASE-XNF-02340] c23 N69-24332
- CRYOSTATS**
- Cryostat for flexure fatigue testing of composite materials
[NASA-CASE-XMF-02964] c14 N71-17659
- Cryostat for use with horizontal fatigue testing machines at low temperatures
[NASA-CASE-XMF-10968] c14 N71-24234
- Heater-mixer for stored fluids
[NASA-CASE-ARC-10442-1] c35 N74-15093
- Cryostat system for temperatures on the order of 2 deg. K or less
[NASA-CASE-NPO-13459-1] c31 N77-10229
- Low cost cryostat
[NASA-CASE-NPO-14513-1] c31 N79-20283
- CRYOTRAPPING**
- Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength
[NASA-CASE-LEW-12081-2] c72 N78-19907
- CRYSTAL DEFECTS**
- Method of controlling defect orientation in silicon crystal ribbon growth
[NASA-CASE-NPO-13918-1] c76 N79-11920
- CRYSTAL FILTERS**
- Infrared tunable dye laser with nonlinear wavelength mixing crystal in optical cavity
[NASA-CASE-ARC-10463-1] c09 N73-32111
- Partial polarizer filter
[NASA-CASE-GSC-12225-1] c74 N79-14891
- CRYSTAL GROWTH**
- Device for producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-02057] c26 N70-40015
- Electrodeposition method for producing crystalline material from dense gaseous medium
[NASA-CASE-NPO-10440] c15 N72-21466
- Growth of gallium nitride crystals
[NASA-CASE-LAR-11302-1] c25 N75-13054
- Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043
- Process for fabricating SiC semiconductor devices
[NASA-CASE-LEW-12094-1] c76 N76-25049
- Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984
- Method of crystallization --- in gravity-free environments
[NASA-CASE-MFS-23001-1] c76 N77-32919
- Pressure transducer --- using a monomeric charge transfer complex sensor
[NASA-CASE-NPO-11150] c35 N78-17359
- A method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952
- Method of controlling defect orientation in silicon crystal ribbon growth
[NASA-CASE-NPO-13918-1] c76 N79-11920
- Method of mitigating titanium impurities effects in P-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N79-17315
- CRYSTAL LATTICES**
- Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-MFS-23315-1] c76 N78-24950
- CRYSTAL OSCILLATORS**
- Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
- Passive intrusion detection system
[NASA-CASE-NPO-13804-1] c35 N77-19390
- CRYSTAL RECTIFIERS**
- Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531
- CRYSTAL STRUCTURE**
- Method of growing composites of the type exhibiting the Soret effect --- improved structure of eutectic alloy crystals
[NASA-CASE-MFS-22926-1] c24 N77-27187
- CRYSTALLIZATION**
- Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984
- Method of crystallization --- in gravity-free environments
[NASA-CASE-MFS-23001-1] c76 N77-32919
- A process for converting amorphous to crystalline silicon with attendant purification
[NASA-CASE-NPO-14223-1] c25 N79-10168
- CRYSTALS**
- Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-MFS-20385] c09 N71-24904
- Crystalline polyimides
[NASA-CASE-LAR-12099-1] c27 N78-24360
- Method and apparatus for slicing crystals
[NASA-CASE-GSC-12291-1] c31 N78-24386
- CULTURE TECHNIQUES**
- Development of variable angle device for positioning test tubes to permit optimum drying of culture medium
[NASA-CASE-LAR-10507-1] c11 N72-25284
- Automatic inoculating apparatus --- includes movable carriage, drive motor, and swabbing motor
[NASA-CASE-LAR-11074-1] c51 N75-13502
- Automatic microbial transfer device
[NASA-CASE-LAR-11354-1] c35 N75-27330
- CURIE TEMPERATURE**
- Manganese bismuth films with narrow transfer characteristics for Curie-point switching
[NASA-CASE-NPO-11336-1] c76 N79-16678
- CURING**
- Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N78-32260
- Ambient cure polyimide foams --- thermal resistant foams
[NASA-CASE-ARC-11170-1] c27 N79-11215
- CURRENT DENSITY**
- Solid state switching circuit design to increase current capacity of low rated relay contacts
[NASA-CASE-XNF-09228] c09 N69-27500
- Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569
- Stable superconducting magnet --- high current levels below critical temperature
[NASA-CASE-XMF-05373-1] c33 N79-21264
- CURRENT DISTRIBUTION**
- Distribution of currents to circuits using electrical adaptor
[NASA-CASE-XLA-01288] c09 N69-21470
- Electron bombardment ion rocket engine with improved propellant introduction system
[NASA-CASE-XLE-02066] c28 N71-15661
- Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
- Electric circuit for reversing direction of current flow
[NASA-CASE-XNF-00952] c10 N71-23271

CURRENT REGULATORS

SUBJECT INDEX

Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage
[NASA-CASE-XRR-11046-2] c33 N74-22864

CURRENT REGULATORS

Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318

Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991

Describing magnetic core current switching device for steering bipolar current pulses to memory units
[NASA-CASE-NPO-10201] c08 N71-18694

Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XMS-03478] c14 N71-21040

Switching series regulator with gating control network
[NASA-CASE-XMS-09352] c09 N71-23316

Magnetic current regulator for saturable core transformer
[NASA-CASE-BRC-10075] c09 N71-24800

Automatic power supply circuit design for driving inductive loads and minimizing power consumption including solenoid example
[NASA-CASE-NPO-10716] c09 N71-24892

Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531

Current regulating voltage divider design with load current shunting
[NASA-CASE-MFS-20935] c09 N71-34212

Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225

Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333

Dual mode solid state power switch
[NASA-CASE-MFS-22880-2] c33 N77-31407

Circuit for automatic load sharing in parallel converter modules
[NASA-CASE-NPO-14056-1] c33 N77-32402

CURVATURE

Apparatus and method for spin forming tubular elbows with high strength, uniform thickness, and close tolerances
[NASA-CASE-XMF-01083] c15 N71-22723

Two degree inverted flexure from single block of material
[NASA-CASE-ARC-10345-1] c15 N73-12488

CURVE FITTING

Simulating voltage-current characteristic curves of solar cell panel with different operational parameters
[NASA-CASE-XMS-01554] c10 N71-10578

CURVED PANELS

Fabrication of curved reflector segments for solar mirror
[NASA-CASE-XLE-08917] c15 N71-15597

Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-XNP-09422] c07 N71-19436

Space erectable rollup solar array of arcuate solar panels furled on tapered drum for spacecraft storage during launch
[NASA-CASE-NPO-10188] c03 N71-20273

Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836

Variable contour securing system
[NASA-CASE-MSC-16270-1] c37 N78-27423

CUSHIONS

A seat cushion to provide realistic acceleration cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-2] c54 N78-30821

CUTTERS

Description of device for aligning stacked sheets of paper for repetitive cutting
[NASA-CASE-XMS-04178] c15 N71-22798

Portable cutting machine for piping weld preparation
[NASA-CASE-XKS-07953] c15 N71-26134

Precision surface cutter for screen circuit negatives and other microcircuits
[NASA-CASE-XLA-09843] c15 N72-27485

Insert facing tool --- manually operated cutting tool for forming studs in honeycomb material
[NASA-CASE-MFS-21485-1] c37 N74-25968

Grinding arrangement for ball nose milling cutters
[NASA-CASE-LAR-10450-1] c37 N74-27905

Ophthalmic liquifaction pump
[NASA-CASE-LEW-12051-1] c52 N75-33640

Method and tool for machining a transverse slot about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249

CUTTING

Ellipsograph for describing and cutting ellipses with minimal axial dimensions
[NASA-CASE-XLA-03102] c14 N71-21079

Precision alignment apparatus for cutting a workpiece
[NASA-CASE-LAR-11658-1] c37 N77-14478

CYANATES

Catalysts for imide formation from aromatic isocyanates and aromatic dianhydrides
[NASA-CASE-ARC-11107-1] c23 N78-22156

CYCLES

Pneumatic system for cyclic control of fluid flow in pneumatic device
[NASA-CASE-XMS-04843] c03 N69-21469

Multistage feedback shift register with states decomposable into cycles of equal length
[NASA-CASE-NPO-11082] c08 N72-22167

CYCLIC ACCELERATORS

Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

CYCLIC HYDROCARBONS

Para-benzoquinone dioxime and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ARC-10304-1] c18 N73-26572

CYCLIC LOADS

Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276

Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
[NASA-CASE-LAR-10270-1] c32 N72-25877

Material testing system with load sensor for applying and measuring cyclic tensile and compressive loads to test specimens
[NASA-CASE-MFS-20673] c14 N73-20476

CYCLOTRON RADIATION

Apparatus for producing high purity I-123 from Xe-123 by bombarding tellurium target with cyclotron beam
[NASA-CASE-LEW-10518-2] c24 N72-28714

Targets for producing high purity I-123
[NASA-CASE-LEW-10518-3] c25 N78-27226

CYLINDRICAL ANTENNAS

Variable beamwidth antenna --- with multiple beam, variable feed system
[NASA-CASE-GSC-11862-1] c32 N76-18295

CYLINDRICAL BODIES

Apparatus for scanning the surface of a cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009

Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N79-17813

CYSTS

Coupling apparatus for ultrasonic medical diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751

DAMPING

Dynamic precession damping of spin-stabilized vehicles by using rate gyroscope and angular accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295

Slosh damping method for liquid rocket propellant tanks
[NASA-CASE-XNP-00658] c12 N70-38997

Utilization of momentum devices for forming attitude control and damping system for spacecraft
[NASA-CASE-XLA-02551] c21 N71-21708

SUBJECT INDEX

DATA RECORDING

- Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694
- Mutation damper for use on spinning body
[NASA-CASE-GSC-11205-1] c15 N73-25513
- Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
[NASA-CASE-ERC-10403-1] c10 N73-26228
- DATA ACQUISITION**
- Conversion system for increasing resolution of analog to digital converters
[NASA-CASE-XAC-00404] c08 N70-40125
- Development of telemetry system for position location and data acquisition
[NASA-CASE-GSC-10083-1] c30 N71-16090
- Data acquisition system for converting displayed analog signal to digital values
[NASA-CASE-NPO-10344] c10 N71-26544
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
- Simultaneous acquisition of tracking data from two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854
- Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ABC-10985-1] c52 N79-10724
- A system for plotting subsoil structure and method therefor
[NASA-CASE-NPO-14191-1] c46 N79-20555
- DATA COLLECTION PLATFORMS**
- Remote platform power conserving system
[NASA-CASE-GSC-11182-1] c15 N75-13007
- DATA COMPRESSION**
- Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
- Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288
- Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435
- Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171
- Data reduction and transmission system for TV PCM data
[NASA-CASE-NPO-11243] c07 N72-20154
- Gated compressor, distortionless signal limiter
[NASA-CASE-NPO-11820-1] c32 N74-19788
- Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
[NASA-CASE-NPO-13545-1] c32 N77-12240
- Sampling video compression system
[NASA-CASE-ABC-10984-1] c32 N77-24328
- DATA CONVERTERS**
- Logarithmic converter for compressing 19-digit binary input number to 8-digit output
[NASA-CASE-XLA-00471] c08 N70-34778
- Mechanical coordinate converter for use with spacecraft tracking antennas
[NASA-CASE-XNP-00614] c14 N70-36907
- Analog signal to discrete time converter
[NASA-CASE-ERC-10048] c09 N72-25251
- Digital converter for scaling binary number to binary coded decimal number of higher multiple
[NASA-CASE-KSC-10595] c08 N73-12176
- Image data rate converter having a drum with a fixed head and a rotatable head
[NASA-CASE-NPO-11659-1] c35 N74-11283
- Electronic analog divider
[NASA-CASE-LEW-11881-1] c33 N77-17354
- DATA LINKS**
- Characteristics of two channel telemetry system with two data rate channels for high and low data rate communication
[NASA-CASE-NPO-11572] c07 N73-16121
- Automatic accounting system for transfer of data from terminals to computer
[NASA-CASE-NPO-11456] c08 N73-26176
- Multi-computer multiple data path hardware exchange system
[NASA-CASE-NPO-13422-1] c60 N76-14818
- Apparatus for simulating optical transmission links
[NASA-CASE-GSC-11877-1] c74 N76-18913
- DATA MANAGEMENT**
- Selective data segment monitoring system --- using shift registers
[NASA-CASE-ABC-10899-1] c60 N77-19760
- DATA PROCESSING**
- Data processing and display system for terminal guidance of X-15 aircraft
[NASA-CASE-XPR-00756] c02 N71-13421
- Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
- Digital data handling circuits for pulse amplifiers
[NASA-CASE-XNP-01068] c10 N71-28739
- Synchronized digital communication system
[NASA-CASE-XNP-03623] c09 N73-28084
- Image data rate converter having a drum with a fixed head and a rotatable head
[NASA-CASE-NPO-11659-1] c35 N74-11283
- Charge-coupled device data processor for an airborne imaging radar system
[NASA-CASE-NPO-13587-1] c32 N77-32342
- Interactive color display for multispectral imagery using correlation clustering
[NASA-CASE-NSC-16253-1] c32 N79-20297
- DATA PROCESSING EQUIPMENT**
- Data processor having multiple sections activated at different times by selective power coupling to sections
[NASA-CASE-XGS-04767] c08 N71-12494
- Development of demodulation system for removing amplitude modulation from two quadrature displaced data bearing signals
[NASA-CASE-XAC-04030] c10 N71-19472
- Development and characteristics of rate augmented digital to analog converter for computed time-dependent data
[NASA-CASE-XLA-07828] c08 N71-27057
- Data processor with plural register stages for selectively interconnecting with each other to effect multiplicity of operations
[NASA-CASE-GSC-10186] c08 N71-33110
- Development and characteristics of telemetry system using computer-accessed circuits and remotely controlled from ground station
[NASA-CASE-NPO-11358] c07 N72-25172
- Development and characteristics of data decoder to process convolution encoded information
[NASA-CASE-NPO-11371] c08 N73-12177
- Characteristics of digital data processor using pulse from clock source to derive binary singles to show state of various indicators in processor
[NASA-CASE-GSC-10975-1] c08 N73-13187
- Automatic accounting system for transfer of data from terminals to computer
[NASA-CASE-NPO-11456] c08 N73-26176
- Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
[NASA-CASE-NPO-13545-1] c32 N77-12240
- High-speed multiplexing of keyboard data inputs
[NASA-CASE-NPO-14554-1] c60 N79-14797
- DATA RECORDERS**
- Description of system for recording and reading out data related to distribution of occurrence of plurality of events
[NASA-CASE-XNP-04067] c08 N71-22707
- Design and characteristics of recording system for selective reprocessing and filtering of data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119
- Recorder/processor apparatus --- for optical data processing
[NASA-CASE-GSC-11553-1] c35 N74-15831
- DATA RECORDING**
- System for recording and reproducing PCM data from data stored on magnetic tape

DATA REDUCTION

SUBJECT INDEX

[NASA-CASE-IGS-01021] c08 N71-21042
Description of system for recording and reading out data related to distribution of occurrence of plurality of events
[NASA-CASE-XNP-04067] c08 N71-22707
Development of data storage system for storing digital data in high density format on magnetic tape
[NASA-CASE-XNP-02778] c08 N71-22710
Transient video signal tape recorder with expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
Apparatus for on-film optical recording of camera lens aperture and focus setting
[NASA-CASE-MSC-12363-1] c14 N73-26431
Image data rate converter having a drum with a fixed head and a rotatable head
[NASA-CASE-NPO-11659-1] c35 N74-11283
Holography utilizing surface plasmon resonances
[NASA-CASE-NFS-22040-1] c35 N74-26946

DATA REDUCTION
System for storing histogram data in optimum number of elements
[NASA-CASE-XNP-09785] c08 N69-21928
Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments
[NASA-CASE-XPR-08403] c05 N71-11202
Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288
Wide range analog data compression system
[NASA-CASE-IGS-02612] c08 N71-19435
Description of system for recording and reading out data related to distribution of occurrence of plurality of events
[NASA-CASE-XNP-04067] c08 N71-22707
Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171
Data reduction and transmission system for TV PCM data
[NASA-CASE-NPO-11243] c07 N72-20154
Data compression using decreasing slope threshold test and digital techniques
[NASA-CASE-NPO-11630] c08 N72-33172

DATA RETRIEVAL
Magnetic matrix memory system for nondestructive reading of information contained in matrix
[NASA-CASE-XNP-05835] c08 N71-12504
Asynchronous, multiplexing, single line transmission and recovery data system --- for satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195

DATA SAMPLING
Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026
Sampling circuit for signal processing in multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10388] c07 N71-24622
Video signal processing system for sampling video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171
Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328

DATA SMOOTHING
Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-XGS-01983] c10 N70-41964

DATA STORAGE
Data handling based on source significance, storage availability, and data received from source
[NASA-CASE-XNP-04162-1] c08 N70-34675
Magnetic matrix memory system for nondestructive reading of information contained in matrix
[NASA-CASE-XNP-05835] c08 N71-12504

Tape guidance system for multichannel digital recording system
[NASA-CASE-XNP-09453] c08 N71-19420
Event recorder with constant speed motor which rotates recording disk
[NASA-CASE-XLA-01832] c14 N71-21006
System for recording and reproducing PCM data from data stored on magnetic tape
[NASA-CASE-IGS-01021] c08 N71-21042
Development of data storage system for storing digital data in high density format on magnetic tape
[NASA-CASE-XNP-02778] c08 N71-22710
Multiple pattern holographic information storage and readout system
[NASA-CASE-ERC-10151] c16 N71-29131
Momentum wheel design for spacecraft attitude control and magnetic drum and head system for data storage
[NASA-CASE-NPO-11481] c21 N73-13644
Data storage, image tube type
[NASA-CASE-MSC-14053-1] c60 N74-12888
Lightning current waveform measuring system
[NASA-CASE-MSC-11018-1] c33 N79-10337

DATA SYSTEMS
Data handling based on source significance, storage availability, and data received from source
[NASA-CASE-XNP-04162-1] c08 N70-34675
Development and characteristics of rate augmented digital to analog converter for computed time-dependent data
[NASA-CASE-XLA-07828] c08 N71-27057
Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598

DATA TRANSMISSION
Telemetry data unit to form multibit words for use between demodulator and computer
[NASA-CASE-XNP-09225] c09 N69-24333
Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-XNP-00911] c08 N70-41961
Minimum time delay unit for conventional time multiplexed data compression channels
[NASA-CASE-XNP-08832] c08 N71-12506
Data compression processor for monitoring analog signals by sampling procedure
[NASA-CASE-NPO-10068] c08 N71-19288
Wide range analog data compression system
[NASA-CASE-IGS-02612] c08 N71-19435
Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763
Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026
Frequency shift keying apparatus for use with pulse code modulation data transmission system
[NASA-CASE-IGS-01537] c07 N71-23405
Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NPO-10118] c07 N71-24741
Data reduction and transmission system for TV PCM data
[NASA-CASE-NPO-11243] c07 N72-20154
Characteristics of two channel telemetry system with two data rate channels for high and low data rate communication
[NASA-CASE-NPO-11572] c07 N73-16121
Automatic accounting system for transfer of data from terminals to computer
[NASA-CASE-NPO-11456] c08 N73-26176
System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519
Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328
Pseudo noise code and data transmission method and apparatus
[NASA-CASE-GSC-12017-1] c32 N77-30308
A system for displaying at a remote station data generated at a central station and for powering the remote station from the central station
[NASA-CASE-GSC-12411-1] c33 N79-14308

SUBJECT INDEX

DEMODULATION

- High-speed multiplexing of keyboard data inputs
[NASA-CASE-NPO-14554-1] c60 N79-14797
- Multi-channel rotating optical interface for data transmission
[NASA-CASE-NPO-14066-1] c44 N79-20496
- DEBRIS**
Counter pumping debris excluder and separator --- gas turbine shaft seals
[NASA-CASE-LEW-11855-1] c07 N78-25090
- DECAY RATES**
Solar sensor with coarse and fine sensing elements for matching preirradiated cells on degradation rates
[NASA-CASE-XLA-01584] c14 N71-23269
- DECELERATION**
Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XNP-00641] c31 N70-36410
- Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
[NASA-CASE-XNS-03792] c14 N70-41812
- Development and characteristics of hot air balloon deceleration and recovery system
[NASA-CASE-XLA-06824-2] c02 N71-11037
- Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-XNP-06515] c14 N71-23227
- DECIMALS**
Digital converter for scaling binary number to binary coded decimal number of higher multiple
[NASA-CASE-KSC-10595] c08 N73-12176
- DECISION MAKING**
Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-HSC-14070-1] c32 N74-32598
- DECODERS**
Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NPO-10150] c08 N71-24650
- Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-IXS-06167] c08 N71-24890
- Design and development of encoder/decoder system to generate binary code which is function of outputs of plurality of bistable elements
[NASA-CASE-NPO-10342] c10 N71-33407
- Compact bi-phase pulse coded modulation decoder
[NASA-CASE-KSC-10834-1] c33 N76-14371
- Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-HSC-14557-1] c32 N76-16249
- Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386
- DECODING**
Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NPO-10118] c07 N71-24741
- Development and characteristics of data decoder to process convolution encoded information
[NASA-CASE-NPO-11371] c08 N73-12177
- Method and apparatus for decoding compatible convolutional codes
[NASA-CASE-HSC-14070-1] c32 N74-32598
- Differential pulse code modulation
[NASA-CASE-HSC-12506-1] c02 N77-12239
- DECONTAMINATION**
Decontamination of petroleum products with honey
[NASA-CASE-INP-03835] c06 N71-23499
- Heat exchanger and decontamination system for multistage refrigeration unit
[NASA-CASE-NPO-10634] c23 N72-25619
- Plasma cleaning device --- designed for high vacuum environments
[NASA-CASE-NFS-22906-1] c75 N78-27913
- DEEP SPACE NETWORK**
Low phase noise frequency divider for use with deep space network communication system
[NASA-CASE-NPO-11569] c10 N73-26229
- DEFECTS**
Hybrid holographic non-destructive test system
[NASA-CASE-NFS-23114-1] c38 N78-32447
- DEFLECTION**
Bipropellant injector with pair of concave deflector plates
[NASA-CASE-XNP-09461] c28 N72-23809
- Horizontally mounted solar collector
[NASA-CASE-NFS-23349-1] c44 N77-30613
- Noncontacting method for measuring angular deflection
[NASA-CASE-LAR-12178-1] c74 N79-11866
- DEFLECTORS**
Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788
- Aircraft wheel spray drag alleviator for dual tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825
- Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
[NASA-CASE-LEW-10689-1] c28 N71-26173
- Exhaust flow deflector --- for ducted gas flow
[NASA-CASE-LAR-11570-1] c34 N76-18364
- DEFOCUSING**
Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
- DEFORMATION**
Deformation measuring apparatus with feedback control for arbitrarily shaped structures
[NASA-CASE-LAR-10098] c32 N71-26681
- Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
[NASA-CASE-LAR-10270-1] c32 N72-25877
- Deformable bearing seat
[NASA-CASE-LEW-12527-1] c37 N77-32500
- DEGREES OF FREEDOM**
Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-IXS-02977] c11 N71-10746
- Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006
- Kinesthetic control simulator --- for pilot training
[NASA-CASE-LAR-10276-1] c09 N75-15662
- DEHUMIDIFICATION**
Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465
- DEHYDRATED FOOD**
Rice preparation process consisting of cooking, two freezing-thawing cycles, and then freeze drying
[NASA-CASE-HSC-13540-1] c05 N72-33096
- DELAY CIRCUITS**
Development of pulsed differential comparator circuit
[NASA-CASE-XLE-03804] c10 N71-19471
- Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-IGS-04224] c10 N71-26418
- Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245
- Swept group delay measurement
[NASA-CASE-NPO-13909-1] c33 N78-25319
- DELAY LINES**
Development and characteristics of solid state acoustic variable time delay line using direct current voltage and radio frequency pulses
[NASA-CASE-EBC-10032] c10 N71-25900
- DELTA MODULATION**
Multifunction audio digitizer --- producing direct delta and pulse code modulation
[NASA-CASE-HSC-13855-1] c35 N74-17885
- DELTA WINGS**
Delta winged, manned reentry vehicle capable of horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986
- DEMAGNETIZATION**
Tumbling motion system for object demagnetization
[NASA-CASE-IGS-02437] c15 N69-21472
- DEMODULATION**
Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763

DEMODULATORS

SUBJECT INDEX

- Restoration and improvement of demodulated facsimile video signals
[NASA-CASE-GSC-10185-1] c07 N72-12081
- Quadrature demodulation
[NASA-CASE-GSC-12137-1] c33 N78-32338
- DEMODULATORS**
- Telemetry data unit to form multibit words for use between demodulator and computer
[NASA-CASE-XNP-09225] c09 N69-24333
- Frequency shift keyed demodulator - circuit diagrams
[NASA-CASE-XGS-02889] c07 N71-11282
- Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XNP-01160] c07 N71-11298
- Development of demodulation system for removing amplitude modulation from two quadrature displaced data bearing signals
[NASA-CASE-XAC-04030] c10 N71-19472
- Calibrator for measuring and modulating or demodulating laser outputs
[NASA-CASE-XLA-03410] c16 N71-25914
- Threshold extension device for improving operating performance of frequency modulation demodulators by eliminating click-type noise impulses
[NASA-CASE-HSC-12165-1] c07 N71-33696
- Full wave modulator-demodulator amplifier apparatus --- for generating rectified output signal
[NASA-CASE-FRC-10072-1] c33 N74-14939
- Unbalanced quadrature demodulator
[NASA-CASE-HSC-14840-1] c32 N77-24331
- Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-10257
- DENSITOMETERS**
- Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618
- Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
- Ultrasonic bone densitometer
[NASA-CASE-NFS-20994-1] c35 N75-12271
- DENSITY DISTRIBUTION**
- Increasing available power per unit area in ion rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
- Varying density composite structure
[NASA-CASE-LAR-11181-1] c39 N75-31479
- Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector --- for determining density of gas
[NASA-CASE-ARC-10631-1] c74 N76-20958
- DENSITY MEASUREMENT**
- Capacitor for measuring density of compressible fluid in liquid, gas, or liquid and gas phases
[NASA-CASE-XLE-00143] c14 N70-36618
- Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
- Determining particle density using known material Hugoniot curves
[NASA-CASE-LAR-11059-1] c76 N75-12810
- Selective image area control of X-ray film exposure density
[NASA-CASE-NPO-13808-1] c35 N78-15461
- DENTISTRY**
- Process for preparing calcium phosphate salts for tooth repair
[NASA-CASE-ERC-10338] c04 N72-33072
- DEOXYGENATION**
- Electrocatalyst for oxygen reduction in low temperature alkaline fuel cell
[NASA-CASE-HQN-10537-1] c06 N72-10138
- DEPLOYMENT**
- Extendable, self-deploying boom apparatus
[NASA-CASE-GSC-10566-1] c15 N72-18477
- Deployable cantilever support for deploying solar cell arrays aboard spacecraft and reducing transient loading
[NASA-CASE-NPO-10883] c31 N72-22874
- Antenna deployment mechanism --- retractable spacecraft antennas
[NASA-CASE-GSC-12331-1] c37 N78-32436
- DEPOSITION**
- Means and methods of depositing thin films on substrates
[NASA-CASE-XNP-00595] c15 N70-34967
- Dual wavelength system for monitoring film deposition
[NASA-CASE-NFS-20675] c26 N73-26751
- Production of pure metals
[NASA-CASE-LEW-10906-1] c25 N74-30502
- Method and apparatus for fabricating improved solar cell modules
[NASA-CASE-NPO-14416-1] c44 N79-18446
- DESALINIZATION**
- Water purification process
[NASA-CASE-ARC-10643-2] c51 N75-13506
- DESCENT**
- Emergency descent device
[NASA-CASE-NFS-23074-1] c54 N77-21844
- DESIGN ANALYSIS**
- Airfoil shape for flight at subsonic speeds --- design analysis and aerodynamic characteristics of the GAW-1 airfoil
[NASA-CASE-LAR-10585-1] c02 N76-22154
- Snap-in compressible biomedical electrode
[NASA-CASE-HSC-14623-1] c52 N77-28717
- DESULFURIZING**
- Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527
- Coal desulfurization
[NASA-CASE-NPO-14272-1] c25 N78-33164
- DETECTION**
- Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
[NASA-CASE-HSC-12084-1] c12 N71-17569
- Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573
- Metal detection system with electromagnetic transmitter with single coil and receiver with single coil
[NASA-CASE-ARC-10265-1] c10 N72-28240
- System for detecting impact position of cosmic dust on detector surface
[NASA-CASE-GSC-11291-1] c25 N72-33696
- Detection of bacteria in biological fluids and foods
[NASA-CASE-GSC-11533-1] c14 N73-13435
- Short range laser obstacle detector --- for surface vehicles using laser diode array
[NASA-CASE-NPO-11856-1] c36 N74-15145
- Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612
- DETECTORS**
- Pressurized cell micrometeoroid detector
[NASA-CASE-XLA-00936] c14 N71-14996
- Development of large area micrometeoroid impact detector panels
[NASA-CASE-XLA-05906] c31 N71-16221
- Development of pulse-activated polarographic hydrogen detector
[NASA-CASE-XNP-06531] c14 N71-17575
- Electro-optical detector for determining position of light source
[NASA-CASE-XNP-01059] c23 N71-21821
- Method for locating leaks in hermetically sealed containers
[NASA-CASE-ERC-10045] c15 N71-24910
- Precipitation detector and mechanism for stopping and restarting machinery at initiation and cessation of rain
[NASA-CASE-XLA-02619] c10 N71-26334
- Hydrogen fire blink detector for high altitude rocket or ground installation
[NASA-CASE-NFS-15063] c14 N72-25412
- Device for detection of combustion light preceding gaseous explosions
[NASA-CASE-LAR-10739-1] c14 N73-16484
- Optical imaging system for increasing light absorption efficiency of imaging detector
[NASA-CASE-ARC-10194-1] c23 N73-20741
- Cold cathode discharge tube with pressurized gas cell for meteoroid detection in space
[NASA-CASE-LAR-10483-1] c14 N73-32327
- Deployable pressurized cell structure for a micrometeoroid detector
[NASA-CASE-LAR-10295-1] c35 N74-21062
- Modulated hydrogen ion flame detector
[NASA-CASE-ARC-10322-1] c35 N76-18403
- DETERGENTS**
- Anti-fog composition --- for prevention of fogging on surfaces such as space helmet

SUBJECT INDEX

DIFFERENTIAL AMPLIFIERS

- visors and windshields
[NASA-CASE-HSC-13530-2] c23 N75-14834
- DETONATION**
Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425
- DETONATION WAVES**
Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
[NASA-CASE-XMP-06926] c28 N71-22983
- DEUTERIUM**
Gas chromatographic method for analyzing hydrogen deuterium mixtures
[NASA-CASE-NPO-11322] c06 N72-25146
Deuterium pass through target --- neutron emitting target
[NASA-CASE-LEW-11866-1] c72 N76-15860
- DIAGNOSIS**
Coupling apparatus for ultrasonic medical diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751
- DIAGRAMS**
Phototransistor with base collector junction diode for integration into photo sensor arrays
[NASA-CASE-NPS-20407] c09 N73-19235
- DIAMINES**
Preparation of elastomeric diamine silazane polymers
[NASA-CASE-XMP-04133] c06 N71-20717
Synthesis of aromatic diamines and dialdehyde polymers using Schiff base
[NASA-CASE-XMP-03074] c06 N71-24740
Synthesis of siloxane containing epoxide and diamine polymers
[NASA-CASE-NPS-13994-2] c06 N72-25148
Stable polyimide synthesis from mixtures of monomeric diamines and polycarboxylic acid esters
[NASA-CASE-LEW-11325-1] c06 N73-27980
Mixed diamines for lower melting addition polyimide preparation and utilization
[NASA-CASE-LAR-12054-1] c27 N78-17218
Mixed diamines for lower melting addition polyimide preparation and utilization
[NASA-CASE-LAR-12054-2] c27 N79-19160
- DIAMONDS**
Exponential horn, copper plate, magnetic hammer, and anvil in apparatus for making diamonds
[NASA-CASE-NPS-20698] c15 N72-20446
Simplified technique and device for producing industrial grade synthetic diamonds
[NASA-CASE-NPS-20698-2] c15 N73-19457
- DIAPHRAGMS (MECHANICAL)**
Expulsion and measuring device for determining quantity of liquid in tank under conditions of weightlessness
[NASA-CASE-XMS-01546] c14 N70-40233
Reinforcing beam system for highly flexible diaphragms in valves or pressure switches
[NASA-CASE-XMP-01962] c32 N70-41370
Flexible rocket motor nozzle closure device to aid ignition and protect rocket chamber from foreign objects
[NASA-CASE-XLA-02651] c28 N70-41967
Knife structure for controlling rupture of shock tube diaphragms
[NASA-CASE-XAC-00731] c11 N71-15960
Magnetically opened diaphragm design with camera shutter and expansion tube applications
[NASA-CASE-XLA-03660] c15 N71-21060
Design and development of inertia diaphragm pressure transducer
[NASA-CASE-XAC-02981] c14 N71-21072
Punch and die device for forming convolution series in thin gage metal hemispheres
[NASA-CASE-XMP-05297] c15 N71-23811
Rubber composition for expulsion bladders and diaphragms for use with hydrazine
[NASA-CASE-NPO-11433] c18 N71-31140
Development of differential pressure control system using notion of mechanical diaphragms to operate electric switch
[NASA-CASE-NPS-14216] c14 N73-13418
- DIATOMIC GASES**
Diatomic infrared gasdynamic laser --- for producing different wavelengths
[NASA-CASE-ARC-10370-1] c36 N75-31426
- DICHROISM**
Dichroic plate --- as bandpass filters
- [NASA-CASE-NPO-13506-1] c35 N76-15435
Microwave dichroic plate
[NASA-CASE-GSC-12171-1] c33 N78-18313
- DICKE RADIONETERS**
Distributed-switch dicke radiometer
[NASA-CASE-GSC-12219-1] c43 N78-22436
- DIELECTRIC POLARIZATION**
Charge injection method and apparatus of producing large area electrets
[NASA-CASE-NPS-23186-2] c24 N78-25137
- DIELECTRIC PROPERTIES**
Capacitive tank gaging device for monitoring one constituent of two phase fluid by sensing dielectric constant
[NASA-CASE-NPS-21629] c14 N72-22442
Fine particulate capture device
[NASA-CASE-LEW-11583-1] c35 N79-17192
- DIELECTRICS**
Fabricating solar cells with dielectric layers to improve glass fusion
[NASA-CASE-IGS-04531] c03 N69-24267
Temperature sensitive capacitor device for detecting very low intensity infrared radiation
[NASA-CASE-XMP-09750] c14 N69-39937
Electrical power system for space flight vehicles operating over extended periods
[NASA-CASE-XMP-00517] c03 N70-34157
Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield
[NASA-CASE-XMS-04312] c07 N71-22984
Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XMP-08880] c09 N71-24808
Laser machining device with dielectric functioning as beam waveguide for mechanical and medical applications
[NASA-CASE-HQN-10541-2] c15 N71-27135
Quasi-optical microwave circuit with dielectric body for use with oversize waveguides
[NASA-CASE-ERC-10011] c07 N71-29065
Semiconductor device manufacture using refractory dielectrics as diffusant masks and interconnection insulating materials
[NASA-CASE-XER-08476-1] c26 N72-17820
Material compositions and processes for developing dielectric thick films used in microcircuit capacitors
[NASA-CASE-LAR-10294-1] c26 N72-28762
Low loss dichroic plate
[NASA-CASE-NPO-13171-1] c32 N74-11000
Electrostatic measurement system --- for contact-electrifying a dielectric
[NASA-CASE-NPS-22129-1] c33 N75-18477
Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994
Charge injection method and apparatus of producing large area electrets
[NASA-CASE-NPS-23186-1] c33 N76-23483
Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures
[NASA-CASE-NPO-14254-1] c36 N78-22359
Preparation of dielectric coating of variable dielectric constant by plasma polymerization
[NASA-CASE-ARC-10892-2] c27 N79-14214
- DIES**
Punch and die device for forming convolution series in thin gage metal hemispheres
[NASA-CASE-XMP-05297] c15 N71-23811
Development and characteristics of frusto-conical die nib for extrusion of refractory metals
[NASA-CASE-XLE-06773] c15 N71-23817
- DISTS**
Reduction of blood serum cholesterol
[NASA-CASE-NPO-12119-1] c52 N75-15270
- DIFFERENTIAL AMPLIFIERS**
Temperature compensated solid state differential amplifier with application in bioinstrumentation circuits
[NASA-CASE-XAC-00435] c09 N70-35440
Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772

DIFFERENTIAL INTERFEROMETRY

Device for determining acceleration of gravity by interferometric measurement of travel of falling body
[NASA-CASE-IXP-05844] c14 N71-17587

DIFFERENTIAL PRESSURE
Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-IXS-05894-1] c15 N69-21924

Apparatus for ejecting covers of instrument packages using differential pressure principle
[NASA-CASE-IXP-04132] c15 N69-27502

Differential sound level meter
[NASA-CASE-LAR-12106-1] c71 N78-14867

Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867

An improved system for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations
[NASA-CASE-FBC-11024-1] c02 N79-17797

DIFFERENTIATORS
Window comparator
[NASA-CASE-FBC-10090-1] c33 N78-18308

DIFFRACTION
Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
[NASA-CASE-ERC-10001] c23 N71-24868

DIFFRACTION PATTERNS
Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem
[NASA-CASE-LAR-10204] c14 N71-27215

DIFFRACTOMETERS
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer
[NASA-CASE-IXP-05231] c14 N73-28491

DIFFUSE RADIATION
Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings
[NASA-CASE-LAR-10385-3] c74 N78-15879

DIFFUSERS
Application of semiconductor diffusants to solar cells by screen printing
[NASA-CASE-LBW-12775-1] c04 N79-11468

DIFFUSION
Selective gold diffusion on monolithic silicon chips for switching and nonswitching amplifier devices and circuits and linear and digital logic circuits
[NASA-CASE-ERC-10072] c09 N70-11148

Metallic film diffusion for boundary lubrication in aerospace engineering
[NASA-CASE-XLE-10337] c15 N71-24046

Transmitting and reflecting diffuser --- for ultraviolet light
[NASA-CASE-LAR-10385-2] c70 N74-13436

DIFFUSION PUMPS
Oil trap for preventing diffusion pump backstreaming into evacuated system
[NASA-CASE-GSC-10518-1] c15 N72-22489

Programmable physiological infusion
[NASA-CASE-ABC-10447-1] c52 N74-22771

DIFFUSION WELDING
Method for diffusion welding dissimilar metals in vacuum chamber
[NASA-CASE-GSC-10303] c15 N72-22487

Reinforced FEP Teflon composite material diffusion bonded to metal substrate
[NASA-CASE-NFS-20482] c15 N72-22492

Two-step diffusion welding process of unrecrystallized alloys
[NASA-CASE-LBW-11388-1] c15 N73-32358

Method of fluxless brazing and diffusion bonding of aluminum containing components
[NASA-CASE-HSC-14435-1] c37 N76-18455

DIGITAL COMMAND SYSTEMS
Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-IGS-02317] c09 N71-23525

System for maintaining motor at predetermined speed using digital pulses
[NASA-CASE-IXP-06892] c09 N71-24805

Digital filter for reducing jitter in digital control systems
[NASA-CASE-NPO-11088] c08 N71-29034

DIGITAL COMPUTERS

Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning
[NASA-CASE-LAR-10590-1] c15 N70-26819

Binary number sorter for arranging numbers in order of magnitude
[NASA-CASE-NPO-10112] c08 N71-12502

Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-IXP-05415] c08 N71-12505

Digital computer system for automatic prelaunch checkout of spacecraft
[NASA-CASE-XKS-08012-2] c31 N71-15566

Description of error correcting methods for use with digital data computers and apparatus for encoding and decoding digital data
[NASA-CASE-IXP-02748] c08 N71-22749

Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NPO-10150] c08 N71-24650

Digital magnetic core memory with sensing amplifier circuits
[NASA-CASE-IXP-01012] c08 N71-28925

Redundant memory for enhanced reliability of digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135

Digital converter for scaling binary number to binary coded decimal number of higher multiple
[NASA-CASE-KSC-10595] c08 N73-12176

Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-HSC-12531-1] c35 N75-30504

Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751

Memory device for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

DIGITAL DATA
Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-IXP-00911] c08 N70-41961

Tape guidance system for multichannel digital recording system
[NASA-CASE-IXP-09453] c08 N71-19420

Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-IGS-01812] c07 N71-23001

Digital data handling circuits for pulse amplifiers
[NASA-CASE-IXP-01068] c10 N71-28739

Bit synchronization system using digital data transition tracking phased locked loop
[NASA-CASE-NPO-10844] c07 N72-20140

Control and information system for digital telemetry data using analog converter to digitize sensed parameter values
[NASA-CASE-NPO-11016] c08 N72-31226

Development and characteristics for automatically displaying digits in any desired order using optical techniques
[NASA-CASE-XKS-00348] c09 N73-14215

Digital plus analog output encoder
[NASA-CASE-GSC-12115-1] c62 N76-31946

Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N79-20751

DIGITAL FILTERS
Design and development of signal detection and tracking apparatus
[NASA-CASE-IGS-03502] c10 N71-20852

Digital filter for reducing jitter in digital control systems
[NASA-CASE-NPO-11088] c08 N71-29034

Nonrecursive counting digital filter containing shift register
[NASA-CASE-NPO-11821-1] c08 N73-26175

Filtering device --- removing electromagnetic noise from voice communication signals
[NASA-CASE-NFS-22729-1] c32 N76-21366

DIGITAL RADAR SYSTEMS
Real-time multiple-look synthetic aperture radar processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278

DIGITAL SPACECRAFT TELEVISION
TV camera output signal control system for

SUBJECT INDEX

DIODES

- digital spacecraft communication
[NASA-CASE-XNP-01472] c14 N70-41807
- DIGITAL SYSTEMS**
- Light sensitive digital aspect sensor for attitude control of earth satellites or space probes
[NASA-CASE-XGS-00359] c14 N70-34158
- Circuit diagram and operation of full binary adder
[NASA-CASE-XGS-00689] c08 N70-34787
- Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-XGS-01812] c07 N71-23001
- Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
[NASA-CASE-XNP-01318] c10 N71-23033
- Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
- Digital memory system with multiple switch cores for driving each word location
[NASA-CASE-XNP-01466] c10 N71-26434
- Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176
- Digital function generator for generating any arbitrary single valued function
[NASA-CASE-NPO-11104] c08 N72-22165
- Digital video system for displaying image and alphanumeric data on cathode ray tube
[NASA-CASE-NPO-11342] c09 N72-25248
- Data compression using decreasing slope threshold test and digital techniques
[NASA-CASE-NPO-11630] c08 N72-33172
- Characteristics of digital data processor using pulse from clock source to derive binary singles to show state of various indicators in processor
[NASA-CASE-GSC-10975-1] c08 N73-13187
- Low phase noise frequency divider for use with deep space network communication system
[NASA-CASE-NPO-11569] c10 N73-26229
- Synchronized digital communication system
[NASA-CASE-XNP-03623] c09 N73-28084
- Digital second-order phase-locked loop
[NASA-CASE-NPO-11905-1] c33 N74-12887
- Digital controller for a Baus folding machine --- providing automatic counting and machine shutoff
[NASA-CASE-LAR-10688-1] c37 N74-21056
- Digital transmitter for data bus communications system
[NASA-CASE-HSC-14558-1] c32 N75-21486
- Automatic character skew and spacing checking network --- of digital tape drive systems
[NASA-CASE-GSC-11925-1] c33 N76-18353
- Anti-multipath digital signal detector
[NASA-CASE-LAR-11827-1] c32 N77-10392
- Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289
- Open loop digital frequency multiplier
[NASA-CASE-HSC-12709-1] c33 N77-24375
- Bit error rate measurement above and below bit rate tracking threshold
[NASA-CASE-HSC-12743-1] c32 N79-10263
- Apparatus and method for stabilized phase detection for binary signal tracking loops
[NASA-CASE-HSC-16461-1] c33 N79-11313
- Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267
- DIGITAL TECHNIQUES**
- Describing frequency discriminator using digital logic circuits and supplying single binary output signal
[NASA-CASE-HPS-14322] c08 N71-18692
- Constructing Exclusive-Or digital logic circuit in single module
[NASA-CASE-XLA-07732] c08 N71-18751
- Horizon sensor design with digital sampling of spaced radiation-compensated thermopile infrared detectors
[NASA-CASE-XNP-06957] c14 N71-21088
- Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XNS-02399] c05 N71-22896
- Digital synchronizer for extracting binary data in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613
- Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem
[NASA-CASE-LAR-10204] c14 N71-27215
- Development and characteristics for automatically displaying digits in any desired order using optical techniques
[NASA-CASE-XKS-00348] c09 N73-14215
- Apparatus and digital technique for coding rate data
[NASA-CASE-LAR-10128-1] c08 N73-20217
- Digital communication system
[NASA-CASE-HSC-13912-1] c32 N74-30524
- Digital phase-locked loop
[NASA-CASE-GSC-11623-1] c33 N75-25040
- Digital numerically controlled oscillator
[NASA-CASE-HSC-16747-1] c33 N79-17138
- DIGITAL TO ANALOG CONVERTERS**
- Development and characteristics of rate augmented digital to analog converter for computed time-dependent data
[NASA-CASE-XLA-07828] c08 N71-27057
- Digital to analog converter with parallel input/output memory device
[NASA-CASE-HSC-10397] c08 N72-25206
- Digital to analog converter for sampled signal reconstruction
[NASA-CASE-HSC-12458-1] c08 N73-32081
- DIGITAL TRANSDUCERS**
- Digital to analog converter for sampled signal reconstruction
[NASA-CASE-HSC-12458-1] c08 N73-32081
- Angle detector
[NASA-CASE-ARC-11036-1] c35 N78-32395
- DIISOCYANATES**
- Chemical and physical properties of synthetic polyurethane polymer prepared by reacting hydroxy carbonate with organic diisocyanate
[NASA-CASE-HPS-10512] c06 N73-30099
- Preparation of stable polyurethane polymer by reacting polymer with diisocyanate
[NASA-CASE-HPS-10506] c06 N73-30100
- Preparation of polyurethane polymer by reacting hydroxy polyformal with organic diisocyanate
[NASA-CASE-HPS-10509] c06 N73-30103
- DIMENSIONS**
- Projection system for display of parallax and perspective
[NASA-CASE-HPS-23194-1] c35 N78-17357
- DIODES**
- Single electrical circuit component combining diode, fuse, and blown indicator with elongated tube of heat resistant transparent material
[NASA-CASE-XKS-03381] c09 N71-22796
- Maintaining current flow through solar cells with open connection using shunting diode
[NASA-CASE-XLE-04535] c03 N71-23354
- Gunn effect microwave diodes with RF shielding
[NASA-CASE-ERC-10119] c26 N72-21701
- Transistorized switching logic circuits with tunnel diodes
[NASA-CASE-GSC-10878-1] c10 N72-22236
- Development of method and apparatus for detecting surface ions on silicon diodes and transistors
[NASA-CASE-ERC-10325] c15 N72-25457
- Development of temperature compensated light source with components and circuitry for maintaining luminous intensity independent of temperature variations
[NASA-CASE-ARC-10467-1] c09 N73-14214
- Silicon carbide backward diode with coated lead attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150
- High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814
- Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339
- Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter
[NASA-CASE-LRW-12791-1] c33 N78-32341
- Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode

DIPOLE ANTENNAS

SUBJECT INDEX

[NASA-CASE-GSC-12168-1] c31 N79-17029

DIPOLE ANTENNAS

Circularly polarized antenna with linearly polarized pair of elements [NASA-CASE-BEC-10214] c09 N72-31235

DIRECT CURRENT

Regulated dc to dc converter [NASA-CASE-XGS-03429] c03 N69-21330

Automatic control of voltage supply to direct current motor [NASA-CASE-XMS-04215-1] c09 N69-39987

Thermionic diode switch for use in high temperature region to chop current from dc source [NASA-CASE-NPO-10404] c03 N71-12255

Transistorized dc-coupled multivibrator with noninverted output signal [NASA-CASE-XNP-09450] c10 N71-18723

Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction [NASA-CASE-GSC-10366-1] c10 N71-18772

Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages [NASA-CASE-GSC-10041-1] c10 N71-19418

Direct current powered self repeating plasma accelerator with interconnected annular and linear discharge channels [NASA-CASE-XLA-03103] c25 N71-21693

Conversion of positive dc voltage to positive dc voltage of lower amplitude [NASA-CASE-XNP-14301] c09 N71-23188

Converting output of positive dc voltage source to negative dc voltage across load with common reference point [NASA-CASE-XNP-08217] c03 N71-23239

Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds [NASA-CASE-XMS-06061] c05 N71-23317

Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range [NASA-CASE-XGS-01418] c09 N71-23573

Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed [NASA-CASE-MPS-20385] c09 N71-24904

Inverters for changing direct current to alternating current [NASA-CASE-XGS-06226] c10 N71-25950

Circuits for controlling reversible dc motor [NASA-CASE-XNP-07477] c09 N71-26092

Feedback control for direct current motor to achieve constant speed under varying loads [NASA-CASE-MPS-14610] c09 N71-28886

High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions [NASA-CASE-LEW-10155-1] c09 N71-29035

Power converters for supplying direct current at one voltage from source at another voltage [NASA-CASE-XER-11046] c09 N72-22203

Dc to ac to dc converter with transistor driven synchronous rectifiers [NASA-CASE-GSC-11126-1] c09 N72-25253

Direct current motor including stationary field windings and stationary armature winding [NASA-CASE-XGS-07805] c15 N72-33476

Powerplexer for distribution of dc power levels to loads which require different voltages [NASA-CASE-MSC-12396-1] c03 N73-31988

Bio-isolated dc operational amplifier --- for bioelectric measurements [NASA-CASE-ARC-10596-1] c33 N74-21851

Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage [NASA-CASE-XER-11046-2] c33 N74-22864

Differential pulse code modulation [NASA-CASE-MSC-12506-1] c32 N77-12239

Three phase full wave dc motor decoder [NASA-CASE-GSC-11824-1] c33 N77-26386

Time domain phase measuring apparatus [NASA-CASE-GSC-12228-1] c33 N79-10338

Direct current transformer [NASA-CASE-MPS-23659-1] c33 N79-17133

Controller for computer control of brushless DC motors [NASA-CASE-NPO-13970-1] c33 N79-20315

DIRECT LIFT CONTROLS

A velocity vector control system augmented with direct lift control --- stability augmentation using manual control [NASA-CASE-LAR-12268-1] c08 N79-20136

DIRECT POWER GENERATORS

Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields [NASA-CASE-XLP-00212] c03 N70-34134

Thermal pump-compressor for converting solar energy [NASA-CASE-XLA-00377] c33 N71-17610

Converting output of positive dc voltage source to negative dc voltage across load with common reference point [NASA-CASE-XNP-08217] c03 N71-23239

Unsaturating magnetic core transformer design with warning signal for electrical power processing equipment [NASA-CASE-BEC-10125] c09 N71-24893

Load insensitive electrical device --- power converters for supplying direct current at one voltage from a source at another voltage [NASA-CASE-XER-11046-2] c33 N74-22864

DIRECTIONAL ANTENNAS

Mechanical coordinate converter for use with spacecraft tracking antennas [NASA-CASE-XNP-00614] c14 N70-36907

Weatherproof helix antenna [NASA-CASE-XKS-08485] c07 N71-19493

Tracking antenna system with array for synchronous satellite or ground based radar [NASA-CASE-GSC-10553-1] c07 N71-19854

Drive system for parabolic tracking antenna with reversible motion and minimal backlash [NASA-CASE-NPO-10173] c15 N71-24696

Variable beamwidth antenna --- with multiple beam, variable feed system [NASA-CASE-GSC-11862-1] c32 N76-18295

An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas [NASA-CASE-NPO-14395-1] c37 N79-12446

DIRECTIONAL CONTROL

Gimbaled partially submerged nozzle for solid propellant rocket engines for providing directional control [NASA-CASE-XNP-01544] c28 N70-34162

Omnidirectional wheel [NASA-CASE-MPS-21309-1] c37 N74-18125

A velocity vector control system augmented with direct lift control --- stability augmentation using manual control [NASA-CASE-LAR-12268-1] c08 N79-20136

DIRECTIONAL STABILITY

Nose gear steering system for vehicles with main skids to provide directional stability after loss of aerodynamic control [NASA-CASE-XLA-01804] c02 N70-34160

System for imposing directional stability on a rocket-propelled vehicle [NASA-CASE-MPS-21311-1] c20 N76-21275

DISCONNECT DEVICES

Patent data on gas actuated bolt disconnect assembly [NASA-CASE-XLA-00326] c03 N70-34667

Remotely actuated quick disconnect mechanism for umbilical cables [NASA-CASE-XLA-00711] c03 N71-12258

Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle [NASA-CASE-XLA-01396] c03 N71-12259

Design and development of quick release connector [NASA-CASE-XLA-01141] c15 N71-13789

Split nut and bolt separation device [NASA-CASE-XNP-06914] c15 N71-21489

Electrical circuit selection device for simulating stage separation of flight vehicle [NASA-CASE-XKS-04631] c10 N71-23663

Quick disconnect duct coupling device for single-handed operation [NASA-CASE-MPS-20395] c15 N71-24903

Breakaway multiwire electrical cable connector with particular application for umbilical type

SUBJECT INDEX

DISPLAY DEVICES

- cables
[NASA-CASE-NPO-11140] c15 N72-17455
- Torsional disconnect device for releasably coupling distal ends of fluid conduits
[NASA-CASE-NPO-10704] c15 N72-20445
- Frangible connecting link suitable for rocket stage separation
[NASA-CASE-MSC-11849-1] c15 N72-22488
- Gas operated quick disconnect coupling for umbilical connectors
[NASA-CASE-NPO-11202] c15 N72-25450
- Quick disconnect filter coupling
[NASA-CASE-MFS-22323-1] c37 N76-14463
- Positive isolation disconnect
[NASA-CASE-MSC-16043-1] c37 N79-11402
- DISCONTINUITY**
Servocontrol system for measuring local stresses at geometric discontinuity in stressed material
[NASA-CASE-XLA-08530] c32 N71-25360
- DISCRIMINATORS**
Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
[NASA-CASE-INP-00701] c09 N70-40272
- Difference indicating circuit used in conjunction with device measuring gravitational fields
[NASA-CASE-INP-08274] c10 N71-13537
- Describing frequency discriminator using digital logic circuits and supplying single binary output signal
[NASA-CASE-MFS-14322] c08 N71-18692
- Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XMS-03478] c14 N71-21040
- Characteristics of comparator circuits for comparison of binary numbers in information processing system
[NASA-CASE-INP-04819] c08 N71-23295
- Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520
- Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041
- Discriminator aided phase lock acquisition for suppressed carrier signals
[NASA-CASE-NPO-14311-1] c32 N79-14276
- DISPENSERS**
Liquid aerosol dispenser with explosively driven piston to compress light gas to extremely high pressure
[NASA-CASE-MFS-20829] c12 N72-21310
- Potable water dispenser
[NASA-CASE-MFS-21115-1] c54 N74-12779
- Lyophilized spore dispenser
[NASA-CASE-LAR-10544-1] c37 N74-13178
- Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MFS-21163-1] c54 N74-17853
- Automatic fluid dispenser
[NASA-CASE-ARC-10820-1] c35 N78-19466
- DISPERSING**
Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves
[NASA-CASE-XLE-04946] c17 N71-24911
- DISPERSIONS**
Method for producing alkali metal dispersions of high purity
[NASA-CASE-INP-08876] c17 N73-28573
- DISPLACEMENT**
Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids
[NASA-CASE-ARC-10441-1] c35 N74-15126
- DISPLACEMENT MEASUREMENT**
Null-type vacuum microbalance for measuring minute mechanical displacements
[NASA-CASE-IAC-00472] c15 N70-40180
- Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
[NASA-CASE-XLA-00781] c09 N71-22999
- Gas bearing for model support with capacity for measuring angular displacement of model in bearing
[NASA-CASE-XLA-09346] c15 N71-28740
- Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test
[NASA-CASE-NPO-10778] c14 N72-11364
- Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338
- DISPLAY DEVICES**
Integrated time shared instrumentation display for aerospace vehicle simulators
[NASA-CASE-XLA-01952] c08 N71-12507
- Data processing and display system for terminal guidance of F-15 aircraft
[NASA-CASE-XFR-00756] c02 N71-13421
- Fluidic-thermochromic display device
[NASA-CASE-ERC-10031] c12 N71-18603
- Cathode ray tube system for displaying ones and zeros in binary wave train
[NASA-CASE-XGS-04987] c08 N71-20571
- Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-INP-03853] c23 N71-21882
- Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
- Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890
- Noninterruptible digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-INP-09759] c08 N71-24891
- Data acquisition system for converting displayed analog signal to digital values
[NASA-CASE-NPO-10344] c10 N71-26544
- Plasma-fluidic hybrid display system combining high brightness and memory characteristics
[NASA-CASE-ERC-10100] c09 N71-33519
- System for digitizing graphic displays
[NASA-CASE-NPO-10745] c08 N72-22164
- Digital video system for displaying image and alphanumeric data on cathode ray tube
[NASA-CASE-NPO-11342] c09 N72-25248
- Development of apparatus for mounting scientific experiments in spacecraft to permit utilization without maneuvering spacecraft
[NASA-CASE-MSC-12372-1] c31 N72-25842
- Development and characteristics for automatically displaying digits in any desired order using optical techniques
[NASA-CASE-XRS-00348] c09 N73-14215
- Situational display system of cathode ray tubes to assist pilot in aircraft control
[NASA-CASE-ERC-10350] c14 N73-20474
- Device for displaying and recording angled views of samples to be viewed by microscope
[NASA-CASE-GSC-11690-1] c14 N73-28499
- Transparent switchboard which permits optical display devices to be adapted for use in man machine communications
[NASA-CASE-MSC-13746-1] c10 N73-32143
- Recorder/processor apparatus --- for optical data processing
[NASA-CASE-GSC-11553-1] c35 N74-15831
- Rotating raster generator
[NASA-CASE-FRC-10071-1] c32 N74-20813
- G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
- X-Y alphanumeric character generator for oscilloscopes
[NASA-CASE-GSC-11582-1] c33 N75-19517
- Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229
- ERG and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619
- Crosswind landing gear position indicator
[NASA-CASE-LAR-11941-1] c06 N77-20098
- Binocular device for displaying numerical information in field of view
[NASA-CASE-LAR-11782-1] c74 N77-20882
- Electrochemical data signal process and display
[NASA-CASE-LAR-11922-1] c25 N78-17171
- Particle parameter analyzing system --- x-y plotter circuits and display

DISSIPATION

SUBJECT INDEX

[NASA-CASE-XLE-06094] c33 N78-17293
Projection system for display of parallax and perspective
[NASA-CASE-MPS-23194-1] c35 N78-17357
Full color hybrid display for aircraft simulators
--- landing aids
[NASA-CASE-ABC-10903-1] c09 N78-18083
A system for displaying at a remote station data generated at a central station and for powering the remote station from the central station
[NASA-CASE-GSC-12411-1] c33 N79-14308
Chromatically corrected virtual image display
--- lens design for flight simulators
[NASA-CASE-LAR-12251-1] c74 N79-14892
Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580
System and method for obtaining wide screen Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856

DISSIPATION
Dissipative voltage regulator system for minimizing heat dissipation
[NASA-CASE-GSC-10891-1] c10 N71-26626

DISSOCIATION
Solar hydrogen generator
[NASA-CASE-LAR-11361-1] c44 N77-22607

DISSOLVING
Apparatus for mixing two or more liquids under zero gravity conditions
[NASA-CASE-LAR-10195-1] c15 N73-19458

DISTANCE MEASURING EQUIPMENT
Binary coded sequential acquisition ranging system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209
Apparatus for determining distance to lighting strokes from single station by magnetic and electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175
Rotary target V-block --- for optical alignment of machinery
[NASA-CASE-LAR-12007-1] c74 N78-15883

DISTILLATION EQUIPMENT
Utilization of solar radiation by solar still for converting salt and brackish water into potable water
[NASA-CASE-XMS-04533] c15 N71-23086
Purification apparatus for vaporization and fractional distillation of liquids
[NASA-CASE-INP-08124] c15 N71-27184
U shaped heated tube for distillation and purification of liquid metals
[NASA-CASE-INP-08124-2] c06 N73-13129

DISTRIBUTED AMPLIFIERS
Broadband distribution amplifier with complementary pair transistor output stages
[NASA-CASE-NPO-10003] c10 N71-26415

DISTRIBUTORS
High voltage distributor
[NASA-CASE-GSC-11849-1] c33 N76-16332

DIVERGENT NOZZLES
Jet exhaust noise suppressor
[NASA-CASE-LEW-11286-1] c07 N74-27490

DIVIDERS
A synchronous binary array divider
[NASA-CASE-ERC-10180-1] c60 N74-20836

DOCUMENT STORAGE
Describing device for flagging punched business cards
[NASA-CASE-XLA-02705] c08 N71-15908

DOORS
Design and specifications of emergency escape system for spacecraft structures
[NASA-CASE-NSC-12086-1] c05 N71-12345

DOPPLER EFFECT
Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978
Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow
[NASA-CASE-MPS-20386] c21 N71-19212
Doppler compensated communication system for locating supersonic transport position
[NASA-CASE-GSC-10087-4] c07 N73-20174
Doppler shift system --- system for measuring velocities of radiating particles
[NASA-CASE-HQN-10740-1] c72 N74-19310

DOPPLER RADAR

Cooperative Doppler radar system for avoiding midair collisions
[NASA-CASE-LAR-10403] c21 N71-11766

DOSIMETERS

Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430

DRAG CHUTES

Deployment system for flexible wing with rigid superstructure
[NASA-CASE-XLA-01220] c02 N70-41863
Lightweight, variable solidity knitted parachute fabric --- for aerodynamic decelerators
[NASA-CASE-LAR-10776-1] c02 N74-10034

DRAG MEASUREMENT

Device for measuring drag forces in flight tests
[NASA-CASE-XLA-00113] c14 N70-33386
Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-00755] c01 N71-13410
Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411
Impact energy absorber with decreasing absorption rate
[NASA-CASE-XLA-01530] c14 N71-23092

An improved system for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations
[NASA-CASE-FRC-11024-1] c02 N79-17797

DRAG REDUCTION

Directed fluid stream for propeller blade loading control
[NASA-CASE-XAC-00139] c02 N70-34856
Aircraft wheel spray drag allevia or for dual tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825

DRIFT (INSTRUMENTATION)

Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986
Solar radiation direction detector and device for compensating degradation of photocells
[NASA-CASE-XLA-00183] c14 N70-40239
Failure detection and control means for improved drift performance of a gimbal platform system
[NASA-CASE-MPS-23551-1] c04 N76-26175

DRILL BITS

Impact bit for cutting, collecting, and storing samples such as lunar rock cuttings
[NASA-CASE-INP-01412] c15 N70-42034
Hole cutter --- drill bits and rotating shaft
[NASA-CASE-MPS-22649-1] c37 N75-25186

DRILLS

Rotary impact-type rock drill for recovering rock cuttings
[NASA-CASE-INP-07478] c14 N69-21923
Auger-type soil penetrometer for burrowing into soil formations
[NASA-CASE-INP-05530] c14 N73-32321
Adjustable chamfering tool
[NASA-CASE-NPO-10857-1] c37 N77-22478

DRIVES

Inverter drive circuit for semiconductor switch
[NASA-CASE-LEW-10233] c10 N71-27126

DROPS (LIQUIDS)

Development of droplet monitoring probe for use in analysis of droplet propagation in mixed-phase fluid stream
[NASA-CASE-NPO-10985] c14 N73-20478

DRUGS

Automated analysis of oxidative metabolites
[NASA-CASE-ARC-10469-1] c25 N75-12086
Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-2] c52 N79-14755

DRY CELLS

Energy source with tantalum capacitors in parallel and miniature silver oxide button cells for initiating pyrotechnic devices on spacecraft and rocket vehicles
[NASA-CASE-LAR-10367-1] c03 N70-26817

DRYING

Drying chamber for photographic sheet material
[NASA-CASE-GSC-11074-1] c14 N73-28489

SUBJECT INDEX

ELASTIC BODIES

DRYING APPARATUS

Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080

DUCTED FANS

Cam-operated pitch-change apparatus
[NASA-CASE-LEW-13050-1] c07 N79-14095

DUCTS

Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-MFS-20395] c15 N71-24903
Externally supported internally stabilized flexible duct joint
[NASA-CASE-MFS-19194-1] c37 N76-14460
Apparatus for supplying conditioned air at a substantially constant temperature and humidity
[NASA-CASE-GSC-12191-1] c54 N79-19688

DUST COLLECTORS

Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning
[NASA-CASE-LAR-10590-1] c15 N70-26819

DYE LASERS

Infrared tunable dye laser with nonlinear wavelength mixing crystal in optical cavity
[NASA-CASE-ARC-10463-1] c09 N73-32111
Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp
[NASA-CASE-LAB-11341-1] c36 N75-19655
Two wavelength double pulse tunable dye laser
[NASA-CASE-LAR-12012-1] c36 N77-10517

DYES

Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
[NASA-CASE-XHF-02221] c18 N71-27170

DYNAMIC CHARACTERISTICS

Dynamic sensor for gas pressure or density measurement
[NASA-CASE-XAC-02877] c14 N70-41681
Design of precision vertical alignment system using laser with gravitationally sensitive cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397

DYNAMIC CONTROL

Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

DYNAMIC LOADS

Multilegged support system for wind tunnel test models subjected to thermal dynamic loading
[NASA-CASE-XLA-01326] c11 N71-21481
Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
[NASA-CASE-INS-04545] c15 N71-22878
Development and characteristics of device for indicating and recording magnitude of force applied in axial direction
[NASA-CASE-MSC-15626-1] c14 N72-25411

DYNAMIC MODULUS OF ELASTICITY

Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere
[NASA-CASE-XLE-01300] c15 N70-41993

DYNAMIC RESPONSE

Lunar and planetary gravity simulator to test vehicular response to landing
[NASA-CASE-XLA-00493] c11 N70-34786
Pressure sensor network for measuring liquid dynamic response in flight including fuel tank acceleration, liquid slosh amplitude, and fuel depth monitoring
[NASA-CASE-XLA-05541] c12 N71-26387
Response analyzing apparatus for liquid vapor interface sensor of sloshing rocket propellant
[NASA-CASE-MFS-11204] c14 N71-29134
Cam-operated pitch-change apparatus
[NASA-CASE-LEW-13050-1] c07 N79-14095

DYNAMIC STRUCTURAL ANALYSIS

Development of system for measuring damping characteristics of structure or system subjected to random forces or influences
[NASA-CASE-ARC-10154-1] c14 N72-22440

DYNAMIC TESTS

Hydraulic support equipment for full scale dynamic testing of large rocket vehicle under free flight conditions

[NASA-CASE-XHF-01772] c11 N70-41677
Hydraulic support apparatus for dynamic testing of space vehicles under near-free flight conditions
[NASA-CASE-XHF-03248] c11 N71-10604

DYNAMOMETERS

Dynamometer measuring microforce thrust produced by ion engine
[NASA-CASE-XLE-00702] c14 N70-40203
Development of thrust dynamometer for measuring performance of jet and rocket engines
[NASA-CASE-XLE-05260] c14 N71-20429

E

EAR

Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
[NASA-CASE-XAC-05422] c04 N71-23185

EARTH (PLANET)

Camera arrangement --- for satellite scanning of earth or sky
[NASA-CASE-GSC-12032-2] c35 N76-19408

EARTH ATMOSPHERE

Ablation sensor for measuring surface ablation rate of material on vehicles entering earths atmosphere on entry into planetary atmospheres
[NASA-CASE-XLA-01791] c14 N71-22991

EARTH ORBITS

Electric furnace for vacuum and zero gravity melting of high melting point materials during earth orbit
[NASA-CASE-MFS-20710] c11 N72-23215
Design and development of space shuttle system for delivering payload to earth orbit or celestial orbit
[NASA-CASE-MSC-12391] c30 N73-12884

ECCENTRICS

Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431

ECHELLETT GRATINGS

Cooled echelle grating spectrometer
[NASA-CASE-NPO-14372-1] c35 N79-17196

ECHOES

Miniature implantable ultrasonic echosonometry
[NASA-CASE-ARC-11035-1] c52 N79-18580

ECONOMIC ANALYSIS

Economical satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631

EDGES

Method of forming a sharp edge on an optical device --- beam splitters for Solar Maximum Missions spectropolarimeter
[NASA-CASE-GSC-12348-1] c74 N78-29902

EFFICIENCY

Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
High efficiency multifrequency feed
[NASA-CASE-GSC-11909] c32 N74-20863

EFFLUENTS

Vortex generator for controlling the dispersion of effluents in a flowing liquid
[NASA-CASE-LAR-12045-1] c34 N77-24423

EJECTION

Apparatus for ejecting covers of instrument packages using differential pressure principle
[NASA-CASE-XHF-04132] c15 N69-27502

EJECTION SEATS

Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-INS-04625] c05 N71-20718

EJECTORS

Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-XHF-00676] c15 N70-38996
Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-INS-04625] c05 N71-20718
Latching mechanism with pivoting catch and self-contained spring ejector
[NASA-CASE-XLA-03538] c15 N71-24897

ELASTIC BODIES

Belleville spring assembly with elastic guides

ELASTIC DEFORMATION

SUBJECT INDEX

having low hysteresis
[NASA-CASE-XNP-09452] c15 N69-27504

Development of systems for automatically and continually suppressing or attenuating bending motion in elastic bodies
[NASA-CASE-XAC-05632] c32 N71-23971

Device for measuring tensile forces
[NASA-CASE-NFS-21728-1] c35 N74-27865

ELASTIC DEFORMATION

Measuring shear-creep compliance of solid and liquid materials used in spacecraft components
[NASA-CASE-XLE-01481] c14 N71-10781

Development of systems for automatically and continually suppressing or attenuating bending motion in elastic bodies
[NASA-CASE-XAC-05632] c32 N71-23971

System for near real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N78-17529

ELASTIC MEDIA

Miniature vibration isolator utilizing elastic tubing material
[NASA-CASE-XLA-01019] c15 N70-40156

ELASTIC PROPERTIES

Elastic universal joint for rocket motor mounting
[NASA-CASE-XNP-00416] c15 N70-36947

Resilient vehicle wheel for lunar surface travel
[NASA-CASE-NFS-20400] c31 N71-18611

Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
[NASA-CASE-XPR-05302] c15 N71-23254

Chemical and elastic properties of fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076

Meter for use in detecting tension in straps
[NASA-CASE-NFS-22189-1] c35 N75-19615

ELASTIC SHEETS

Hot forming of plastic sheets
[NASA-CASE-XNS-05516] c15 N71-17803

ELASTOMERS

Describing metal valve pintle with encapsulated elastomeric body
[NASA-CASE-MSC-12116-1] c15 N71-17648

Development of apparatus for measuring successive increments of strain on elastomers
[NASA-CASE-XNP-04680] c15 N71-19489

Preparation of elastomeric diamine silazane copolymers
[NASA-CASE-XNP-04133] c06 N71-20717

Leak resistant bonded elastomeric seal for secondary electrochemical cells
[NASA-CASE-XGS-02631] c03 N71-23006

Conductive elastomeric extensometer
[NASA-CASE-NFS-21049-1] c52 N74-27864

Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

Method of making hollow elastomeric bodies
[NASA-CASE-NPO-13535-1] c37 N76-31524

Flame retardant formulations and products produced therefrom
[NASA-CASE-MSC-16307-1] c25 N78-27232

Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments
[NASA-CASE-MSC-14331-3] c27 N78-32262

ELECTRETS

Charge injection method and apparatus of producing large area electrets
[NASA-CASE-NFS-23186-1] c33 N76-23483

Charge injection method and apparatus of producing large area electrets
[NASA-CASE-NFS-23186-2] c24 N78-25137

ELECTRIC ARCS

Magnetically diffused radial electric arc heater
[NASA-CASE-XLA-00330] c33 N70-34540

Controlled arc spot welding method
[NASA-CASE-XNP-00392] c15 N70-34814

Triggering system for electric arc driven impulse wind tunnel
[NASA-CASE-XNP-00411] c11 N70-36913

Electric arc device for minimizing electrode ablation and heating gases to supersonic or hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628

Electric arc heater with supersonic nozzle and fixed arc length for use in high temperature

wind tunnels
[NASA-CASE-XAC-01677] c09 N71-20816

Arc electrode of graphite with tantalum ball tip
[NASA-CASE-XLE-04788] c09 N71-22987

High powered arc electrodes --- producing solar simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913

Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318

ELECTRIC BATTERIES

Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320

Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051

Battery charging system with cell to cell voltage balance
[NASA-CASE-XGS-05432] c03 N71-19438

Development and characteristics of battery charging circuits with coulometer for control of available current
[NASA-CASE-GSC-10487-1] c03 N71-24719

Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579

Development of device for simulating charge and discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-25020

Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions
[NASA-CASE-NPO-11806-1] c44 N74-19693

Battery testing device --- for testing cells of multiple-cell battery
[NASA-CASE-NFS-20761-1] c44 N74-27519

Rapid activation and checkout device for batteries
[NASA-CASE-NFS-22749-1] c44 N76-14601

Zinc-halide battery with molten electrolyte
[NASA-CASE-NPO-11961-1] c44 N76-18643

Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-NFS-23059-1] c44 N76-27664

ELECTRIC BRIDGES

Pulsed excitation voltage circuit for strain gage bridge transducers
[NASA-CASE-PRC-10036] c09 N72-22200

Bridge-type gain control circuit
[NASA-CASE-GSC-10786-1] c10 N72-28241

Diode-gate bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041

Germanium coated microbridge and method
[NASA-CASE-NFS-23274-1] c33 N78-13320

ELECTRIC CELLS

Expanding and contracting connector strip for solar cell array of Nimbus satellite
[NASA-CASE-XGS-01395] c03 N69-21539

Design and characteristics of heat activated electric cell with anode made from one or more alkali metals and cathode made from oxidizing material
[NASA-CASE-LEW-11358] c03 N71-26084

Development and characteristics of ion-exchange membrane and electrode assembly for fuel cells or electrolysis cells
[NASA-CASE-XNS-02063] c03 N71-29044

ELECTRIC CHARGE

Indicator device for monitoring charge of wet cell battery, using semiconductor light emitter and photodetector
[NASA-CASE-NPO-10194] c03 N71-20407

Automatically charging battery of electric storage cells
[NASA-CASE-XNP-04758] c03 N71-24605

ELECTRIC CHOPPERS

Monostable multivibrator for conserving power in spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221

Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295

ELECTRIC COILS

Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
[NASA-CASE-XNS-05303] c07 N69-27462

ELECTRIC CONDUCTORS

Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542

SUBJECT INDEX

ELECTRIC CURRENT

- Conductor for connecting parallel cells into submodules in series to form solar cell matrix [NASA-CASE-NPO-10821] c03 N71-19545
- Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing also used for leveling [NASA-CASE-NPO-10037] c09 N71-19610
- Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses [NASA-CASE-FRC-10029] c09 N71-24618
- Development of process for forming insulating layer between two electrical conductor or semiconductor materials [NASA-CASE-LBN-10489-1] c15 N72-25447
- Improved injector with porous plug for bubbles of gas into feed lines of electrically conductive liquid [NASA-CASE-NPO-11377] c15 N73-27406
- Solar cell grid patterns [NASA-CASE-NPO-13087-2] c44 N76-31666
- Shielded conductor cable system [NASA-CASE-MSC-12745-1] c33 N77-13338
- Velocity measurement system [NASA-CASE-MPS-23363-1] c35 N78-32396
- ELECTRIC CONNECTORS**
- Distribution of currents to circuits using electrical adaptor [NASA-CASE-XLA-01288] c09 N69-21470
- Fixture for simultaneously supporting several components for electrical testing [NASA-CASE-INP-06032] c09 N69-21926
- Releasable coupling device designed to receive and retain matching ends of electrical connectors [NASA-CASE-XMS-07846-1] c09 N69-21927
- Electrical feedthrough connection for printed circuit boards [NASA-CASE-INP-01483] c14 N69-27431
- Electrical connector pin with wiping action to assure reliable contact [NASA-CASE-INP-04238] c09 N69-39734
- Rectangular electric conductors for conductor cables to withstand spacecraft vibration and controlled atmosphere [NASA-CASE-MPS-14741] c09 N70-20737
- Patent data on terminal insert connector for flat electric cables [NASA-CASE-INP-00324] c09 N70-34596
- Electric connector for printed cable to printed cable or to printed board [NASA-CASE-INP-00369] c09 N70-36494
- Electrical connection for printed circuits on common board, using bellows principle in rivet [NASA-CASE-INP-05082] c15 N70-41960
- Method of making molded electric connector for use with flat conductor cables [NASA-CASE-INP-03498] c15 N71-15986
- Design and development of electric connectors for rigid and semirigid coaxial cables [NASA-CASE-INP-04732] c09 N71-20851
- Connector internal force gage for measuring strength of electrical connection [NASA-CASE-INP-03918] c14 N71-23087
- Maintaining current flow through solar cells with open connection using shunting diode [NASA-CASE-XLE-04535] c03 N71-23354
- Electrical connections for thin film hybrid microcircuits [NASA-CASE-XMS-02182] c10 N71-28783
- Breakaway multiwire electrical cable connector with particular application for umbilical type cables [NASA-CASE-NPO-11140] c15 N72-17455
- Reliability of electrical connectors after heat sterilization [NASA-CASE-NPO-10694] c09 N72-20200
- Development of electric connector and pin assembly with radio frequency absorbing sleeve to reduce radio frequency interference [NASA-CASE-XLA-02609] c09 N72-25256
- Electrical interconnection of unilluminated solar cells in solar battery array [NASA-CASE-GSC-10344-1] c03 N72-27053
- Separable flat cable connector with isolated electrical contacts [NASA-CASE-MPS-20757] c09 N72-28225
- Device for configuring multiple leads --- method for connecting electric leads to printed circuit board [NASA-CASE-MPS-22133-1] c33 N74-26977
- Connector --- for connecting circuits on different layers of multilayer printed circuit boards [NASA-CASE-LAR-11709-1] c37 N76-27567
- Percutaneous connector device [NASA-CASE-KSC-10849-1] c52 N77-14738
- Magnetic electrical connectors for biomedical percutaneous implants [NASA-CASE-KSC-11030-1] c52 N77-25772
- A tool for use in joining connectors to shielded cables [NASA-CASE-NPO-14296-1] c37 N78-25432
- ELECTRIC CONTACTS**
- Solid state switching circuit design to increase current capacity of low rated relay contacts [NASA-CASE-INP-09228] c09 N69-27500
- Characteristics of hermetically sealed electric switch with flexible operating capability [NASA-CASE-INP-09808] c09 N71-12518
- Electrode connection for n-on-p silicon solar cell [NASA-CASE-XLE-04787] c03 N71-20492
- Development of slip ring assembly with inner and outer peripheral surfaces used as electrical contacts for brushes [NASA-CASE-INP-01049] c15 N71-23049
- Separable flat cable connector with isolated electrical contacts [NASA-CASE-MPS-20757] c09 N72-28225
- Electrostatic measurement system --- for contact-electrifying a dielectric [NASA-CASE-MPS-22129-1] c33 N75-18477
- Process for preparing liquid metal electrical contact device [NASA-CASE-LBN-11978-1] c33 N77-26385
- ELECTRIC CONTROL**
- Switching series regulator with gating control network [NASA-CASE-XMS-09352] c09 N71-23316
- ELECTRIC CORONA**
- Charge injection method and apparatus of producing large area electrets [NASA-CASE-MPS-23186-1] c33 N76-23483
- ELECTRIC CURRENT**
- Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity [NASA-CASE-XGS-03505] c03 N74-10608
- Development of in-line fuse device for protection of electric circuits from excessive currents and voltages [NASA-CASE-MSC-12135-1] c09 N71-12526
- Micromicroampere current measuring circuit, with two subminiature thermionic diodes with filament cathodes [NASA-CASE-INP-00384] c09 N71-13530
- Connector internal force gage for measuring strength of electrical connection [NASA-CASE-INP-03918] c14 N71-23087
- Electric circuit for producing high current pulse having fast rise and fall time [NASA-CASE-XMS-04919] c09 N71-23270
- Electric circuit for reversing direction of current flow [NASA-CASE-INP-00952] c10 N71-23271
- Maintaining current flow through solar cells with open connection using shunting diode [NASA-CASE-XLE-04535] c03 N71-23354
- Color television system utilizing single gun current sensitive color cathode ray tube [NASA-CASE-ERC-10098] c09 N71-28618
- Current dependent variable inductance for input filter chokes of ac or dc power supplies [NASA-CASE-ERC-10139] c09 N72-17154
- Amplifying circuit with constant current source for accumulator load and high gain voltage amplification [NASA-CASE-NPO-11023] c09 N72-17155
- Commutator for steering precisely controlled bidirectional currents through numerous loads by use of magnetic core shift registers [NASA-CASE-NPO-10743] c08 N72-21199
- Current protection equipment for saturable core transformers [NASA-CASE-ERC-10075-2] c09 N72-22196

ELECTRIC DISCHARGES

SUBJECT INDEX

- Development of thermal to electric power conversion system using solid state switches of electrical currents to load for Seebeck effect compensation
[NASA-CASE-NPO-11388] c03 N72-23048
- Load current sensor for series pulse width modulated power supply
[NASA-CASE-GSC-10656-1] c09 N72-25249
- Electrode with multiple columnar conductors for limiting field emission current
[NASA-CASE-ERC-10015-2] c10 N72-27246
- Means of vapor deposition using electric current and evaporator filament
[NASA-CASE-LAR-10541-1] c15 N72-32487
- Lightning current measuring systems
[NASA-CASE-KSC-10807-1] c33 N75-26246
- Overload protection system for power inverter
[NASA-CASE-NPO-13872-1] c33 N78-10377
- Shunt regulation electric power system
[NASA-CASE-GSC-10135] c33 N78-17296
- Kine-Pak: A self-contained, electrical power generator system --- using a helical spring to rotate a rotor and generate electric current
[NASA-CASE-LAR-11551-1] c44 N78-22468
- Driver for solar cell I-V characteristic plots
[NASA-CASE-NPO-14096-1] c44 N78-28625
- Lightning current waveform measuring system
[NASA-CASE-KSC-11018-1] c33 N79-10337
- Electroexplosive device
[NASA-CASE-NPO-13858-1] c28 N79-11231
- Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N79-11315
- Lightning current detector
[NASA-CASE-KSC-11057-1] c33 N79-14305
- ELECTRIC DISCHARGES**
- Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-XMP-00375] c15 N70-34249
- High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-MSC-12178-1] c09 N71-13518
- Pulse generating circuit for operation at very high duty cycles and repetition rates
[NASA-CASE-XMP-00745] c10 N71-28960
- Rapidly pulsed, high intensity, incoherent light source
[NASA-CASE-XLE-2529-3] c33 N74-20859
- Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297
- ELECTRIC ENERGY STORAGE**
- Electric current measuring apparatus design including saturable core transformer and energy storage device to avoid magnetizing current errors from transformer output winding
[NASA-CASE-XGS-02439] c14 N71-19431
- Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-MPS-23059-1] c44 N76-27664
- Electrically rechargeable REDOX flow cell
[NASA-CASE-LRW-12220-1] c44 N77-14581
- Gels as battery separators for soluble electrode cells
[NASA-CASE-LRW-12364-1] c44 N77-22606
- Electrochemical cell for rebalancing redox flow system
[NASA-CASE-LRW-13150-1] c44 N78-25554
- ELECTRIC EQUIPMENT**
- Characteristics of high power, low distortion, alternating current power amplifier
[NASA-CASE-LAR-10218-1] c09 N70-34559
- Design and development of electric generator for space power system
[NASA-CASE-XLB-04250] c09 N71-20446
- Development of electrical system for measuring high impedance
[NASA-CASE-XMS-08589-1] c09 N71-20569
- Design, development, and operating principles of power supply with starting circuit which is independent of voltage regulator
[NASA-CASE-XMS-01991] c09 N71-21449
- Development of method for improving signal to noise ratio and accuracy of Wheatstone bridge type radiation measuring instrument
[NASA-CASE-XLA-02810] c14 N71-25901
- Design and development of buck-boost voltage regulator circuit with additive or subtractive alternating current impressed on variable direct current source voltage
[NASA-CASE-GSC-10735-1] c10 N71-26085
- Development and characteristics of electronically resettable fuse with saturable core current sensing transformer having two outside legs and center leg
[NASA-CASE-XGS-11177] c09 N71-27001
- Development and characteristics of voltage regulator for connection in series with alternating current source and load using three leg, two-window transformer
[NASA-CASE-ERC-10113] c09 N71-27053
- Development of electric circuit for production of different pulse width signals
[NASA-CASE-XLA-07788] c09 N71-29139
- Development of solar energy powered heliotrope assembly to orient solar array toward sun
[NASA-CASE-GSC-10945-1] c21 N72-31637
- Development of temperature compensated light source with components and circuitry for maintaining luminous intensity independent of temperature variations
[NASA-CASE-ARC-10467-1] c09 N73-14214
- Development and characteristics of hermetically sealed coaxial package for containing microwave semiconductor components
[NASA-CASE-GSC-10791-1] c15 N73-14469
- Overvoltage protection network
[NASA-CASE-ABC-10197-1] c33 N74-17929
- Sprag solenoid brake --- development and operations of electrically controlled brake
[NASA-CASE-MPS-21846-1] c37 N74-26976
- Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573
- Self-regulating proportionally controlled heating apparatus and technique
[NASA-CASE-GSC-11752-1] c77 N75-20140
- ELECTRIC EQUIPMENT TESTS**
- Fixture for simultaneously supporting several components for electrical testing
[NASA-CASE-XMP-06032] c09 N69-21926
- Electrical testing apparatus for detecting amplitude and width of transient pulse
[NASA-CASE-XMP-06519] c09 N71-12519
- Variable water load for dissipating large amounts of electrical power during high voltage power supply tests
[NASA-CASE-XMP-05381] c09 N71-20842
- ELECTRIC FIELD STRENGTH**
- Low impedance apparatus for measuring electrostatic field intensity near space vehicles
[NASA-CASE-XLE-00820] c14 N71-16014
- Space environment simulation system for measuring spacecraft electric field strength in plasma sheath
[NASA-CASE-XLE-02038] c09 N71-16086
- Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790
- Apparatus to determine electric field strength by measuring deflection of electron beam impinging on target
[NASA-CASE-XMP-06617] c09 N71-24843
- ELECTRIC FIELDS**
- Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-00755] c01 N71-13410
- Electric analog for measuring induced drag on nonplanar airfoils
[NASA-CASE-XLA-05828] c01 N71-13411
- Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421
- Electron beam deflection devices for measuring electric fields
[NASA-CASE-XMP-10289] c14 N71-23699
- Electrodes having array of small surfaces for field ionization
[NASA-CASE-ERC-10013] c09 N71-26678
- Apparatus for determining distance to lighting strokes from single station by magnetic and electric field sensing antennas
[NASA-CASE-KSC-10698] c07 N73-20175
- Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318

SUBJECT INDEX

ELECTRIC MOTORS

- Electric field measuring and display system ---
for cloud formations
[NASA-CASE-KSC-10731-1] c33 N74-27862
- ELECTRIC FILTERS**
Describing static inverter with single or
multiple phase output
[NASA-CASE-IMP-00663] c08 N71-18752
Apparatus for filtering input signals
[NASA-CASE-NPO-10198] c09 N71-24806
Active RC filter networks and amplifiers for
deep space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171
Multiloop RC active filter network with low
parameter sensitivity and low amplifier gain
[NASA-CASE-ARC-10192] c09 N72-21245
Development of electric connector and pin
assembly with radio frequency absorbing sleeve
to reduce radio frequency interference
[NASA-CASE-XLA-02609] c09 N72-25256
Filter for third order phase locked loops in
signal receivers
[NASA-CASE-NPO-11941-1] c10 N73-27171
- ELECTRIC FUSES**
Development of in-line fuse device for
protection of electric circuits from excessive
currents and voltages
[NASA-CASE-MSC-12135-1] c09 N71-12526
Single electrical circuit component combining
diode, fuse, and blown indicator with
elongated tube of heat resistant transparent
material
[NASA-CASE-XKS-03381] c09 N71-22796
- ELECTRIC GENERATORS**
Regulated dc to dc converter
[NASA-CASE-XGS-03429] c03 N69-21330
Nuclear electric generator for accelerating
charged propellant particles in electrostatic
propulsion system
[NASA-CASE-XLE-00818] c22 N70-34248
Design and development of electric generator for
space power system
[NASA-CASE-XLE-04250] c09 N71-20446
Development and characteristics of single or
doubt pulse generator which produces constant
width pulses in nanosecond region
[NASA-CASE-XGS-03427] c10 N71-23029
Development of slip ring assembly with inner and
outer peripheral surfaces used as electrical
contacts for brushes
[NASA-CASE-IMP-01049] c15 N71-23049
Conversion of positive dc voltage to positive dc
voltage of lower amplitude
[NASA-CASE-IMP-14301] c09 N71-23188
High temperature ferromagnetic cobalt-base alloy
for electrical power generating equipment
[NASA-CASE-XLE-03629] c17 N71-23248
Solid state integrator for converting variable
width pulses into analog voltage
[NASA-CASE-XLA-03356] c10 N71-23315
Electric power system with circulatory liquid
coolant cooling system
[NASA-CASE-MPS-14114-2] c09 N71-24807
Device utilizing RC rate generators for
continuous slow speed measurement
[NASA-CASE-IMP-02966] c10 N71-24863
Device for voltage conversion using controlled
pulse widths and arrangements to generate ac
output voltage
[NASA-CASE-MPS-10068] c10 N71-25139
Multiple varactor for generating high
frequencies with high power and high
conversion efficiency
[NASA-CASE-IMP-04958-1] c10 N71-26414
Circuit design for failure sensing and
protecting low voltage electric generator and
power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366
Electric power system with thermionic diodes and
circulatory liquid metal coolant lines
[NASA-CASE-MPS-14114] c33 N71-27862
Power converters for supplying direct current at
one voltage from source at another voltage
[NASA-CASE-XER-11046] c09 N72-22203
Inductive-capacitive loops as load insensitive
power converters
[NASA-CASE-ERC-10268] c09 N72-25252
Dc to ac to dc converter with transistor driven
synchronous rectifiers
[NASA-CASE-GSC-11126-1] c09 N72-25253
- Device for converting electromagnetic wave
energy into electric power
[NASA-CASE-GSC-11394-1] c09 N73-32109
Heat operated cryogenic electrical generator
[NASA-CASE-NPO-13303-1] c20 N75-24837
Electric power generation system directory from
laser power
[NASA-CASE-NPO-13308-1] c36 N75-30524
Smoke generator
[NASA-CASE-ARC-10905-1] c37 N77-13418
Electro-mechanical sine/cosine generator
[NASA-CASE-LAR-11389-1] c33 N77-26387
Kine-Pak: A self-contained, electrical power
generator system --- using a helical spring to
rotate a rotor and generate electric current
[NASA-CASE-LAR-11551-1] c44 N78-22468
Wind wheel electric power generator
[NASA-CASE-MPS-23515-1] c44 N78-22469
- ELECTRIC IGNITION**
Method of making solid propellant rocket motor
having reliable high altitude capabilities,
long shelf life, and capable of firing with
nozzle closure with foamed plastic permanent
mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
- ELECTRIC MOTORS**
Automatic control of voltage supply to direct
current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987
Electronic circuit system for controlling
electric motor speed
[NASA-CASE-IMP-01129] c09 N70-38712
Using electron beam switching for brushless
motor commutation
[NASA-CASE-XGS-01451] c09 N71-10677
Direct current electromotive system for
regenerative braking of electric motor
[NASA-CASE-IMP-01096] c10 N71-16030
Describing angular position and velocity sensing
apparatus
[NASA-CASE-XGS-05680] c14 N71-17585
Reversible current directing circuitry for
reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
Stepping motor control apparatus exciting
windings in proper time sequence to cause
motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772
Electromagnetic braking arrangement for
controlling rotor rotation in electric motor
[NASA-CASE-IMP-06936] c15 N71-24695
Electric motor control system with pulse width
modulation for providing automatic null
seeking servo
[NASA-CASE-IMP-05195] c10 N71-24861
Velocity limiting safety system for motor driven
research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895
Design and development of electric motor with
stationary field and armature windings which
operates on direct current
[NASA-CASE-XGS-05290] c09 N71-25999
Circuits for controlling reversible dc motor
[NASA-CASE-IMP-07477] c09 N71-26092
Pulse duration control device for driving slow
response time loads in selected sequence
including switching and delay circuits and
magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
Feedback control for direct current motor to
achieve constant speed under varying loads
[NASA-CASE-MPS-14610] c09 N71-28886
Optimal control system for automatic speed
regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244
Direct current motor including stationary field
windings and stationary armature winding
[NASA-CASE-XGS-07805] c15 N72-33476
Speed control system for dc motor equipped with
brushless Hall effect device
[NASA-CASE-MPS-20207-1] c09 N73-32107
Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386
Rotary electric device
[NASA-CASE-GSC-12138-1] c33 N79-20314
Controller for computer control of brushless DC
motors
[NASA-CASE-NPO-13970-1] c33 N79-20315

ELECTRIC NETWORKS

SUBJECT INDEX

ELECTRIC NETWORKS

Electric network for monitoring temperatures, detecting critical temperatures, and indicating critical time duration
[NASA-CASE-INP-01097] c10 N71-16058

Development and characteristics of single or double pulse generator which produces constant width pulses in nanosecond region
[NASA-CASE-IGS-03427] c10 N71-23029

Switching series regulator with gating control network
[NASA-CASE-IMS-09352] c09 N71-23316

Broadband frequency discriminator with resistive captive inductive networks
[NASA-CASE-NPO-10096] c07 N71-24583

ELECTRIC POTENTIAL

Battery charging system with cell to cell voltage balance
[NASA-CASE-IGS-05432] c03 N71-19438

Conversion of positive dc voltage to positive dc voltage of lower amplitude
[NASA-CASE-INP-14301] c09 N71-23188

Solid state integrator for converting variable width pulses into analog voltage
[NASA-CASE-ILA-03356] c10 N71-23315

Device for monitoring voltage by generating signal when voltages drop below predetermined value
[NASA-CASE-KSC-10020] c10 N71-27338

Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246

Pulsed excitation voltage circuit for strain gage bridge transducers
[NASA-CASE-FRC-10036] c09 N72-22200

Power converters for supplying direct current at one voltage from source at another voltage
[NASA-CASE-XER-11046] c09 N72-22203

Continuously variable, voltage-controlled phase shifter
[NASA-CASE-NPO-11129] c09 N72-33204

Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429

Microcomputerized electric field meter diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c35 N78-28411

Driver for solar cell I-V characteristic plots
[NASA-CASE-NPO-14096-1] c44 N78-28625

ELECTRIC POWER

Switching circuit with regeneratively connected transistors eliminating power consumption when not in use
[NASA-CASE-INP-02654] c10 N70-42032

Variable water load for dissipating large amounts of electrical power during high voltage power supply tests
[NASA-CASE-INP-05381] c09 N71-20842

Power factor control system for AC induction motors
[NASA-CASE-NFS-23280-1] c33 N78-10376

Shunt regulation electric power system
[NASA-CASE-GSC-10135] c33 N78-17296

ELECTRIC POWER PLANTS

Ocean thermal plant
[NASA-CASE-KSC-11034-1] c44 N78-32542

ELECTRIC POWER SUPPLIES

Current dependent variable inductance for input filter chokes of ac or dc power supplies
[NASA-CASE-ERC-10139] c09 N72-17154

Development of thermal to electric power conversion system using solid state switches of electrical currents to load for Seebeck effect compensation
[NASA-CASE-NPO-11388] c03 N72-23048

Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
[NASA-CASE-ERC-10403-1] c10 N73-26228

Powerplexer for distribution of dc power levels to loads which require different voltages
[NASA-CASE-MSC-12396-1] c03 N73-31988

Reliable electrical element heater using plural wire system and backup power sources
[NASA-CASE-NFS-21462-1] c33 N74-14935

Temperature compensated current source
[NASA-CASE-MSC-11235] c33 N78-17294

ELECTRIC POWER TRANSMISSION

Power switch with transfluxor type magnetic core

[NASA-CASE-NPO-10242] c09 N71-24803

Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366

Powerplexer for distribution of dc power levels to loads which require different voltages
[NASA-CASE-MSC-12396-1] c03 N73-31988

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver
[NASA-CASE-NFS-21470-1] c44 N74-19870

ELECTRIC PROPULSION

Electric propulsion engine test chamber
[NASA-CASE-XLE-00252] c11 N70-34844

ELECTRIC PULSES

RC transistor circuit to indicate each pulse of pulse train and occurrence of nth pulse
[NASA-CASE-INP-00906] c09 N70-41655

Design and development of variable pulse width multiplier
[NASA-CASE-ILA-02850] c09 N71-20447

Piezoelectric transducer for monitoring sound waves of physiological origin
[NASA-CASE-IMS-05365] c14 N71-22993

Development and characteristics of single or double pulse generator which produces constant width pulses in nanosecond region
[NASA-CASE-IGS-03427] c10 N71-23029

Solid state integrator for converting variable width pulses into analog voltage
[NASA-CASE-ILA-03356] c10 N71-23315

Development and characteristics of electric circuitry for detecting electrical pulses rise time and amplitude
[NASA-CASE-INP-08804] c09 N71-20717

Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-INP-06234] c10 N71-27137

Precision full wave rectifier circuit for rectifying incoming electrical signals having positive or negative polarity with only positive output signals
[NASA-CASE-ARC-10101-1] c09 N71-33109

Phase modulating with odd and even finite power series of a modulating signal
[NASA-CASE-LAR-11607-1] c32 N77-14292

ELECTRIC RELAYS

Spark gap type protective circuit for fast sensing and removal of overvoltage conditions
[NASA-CASE-XAC-08981] c09 N69-39897

Time division multiplexer with magnetic latching relays
[NASA-CASE-INP-00431] c09 N70-38998

Alarm system design for monitoring one or more relay circuits
[NASA-CASE-XMS-10984-1] c10 N71-19417

Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773

Relay circuit breaker with magnetic latching to provide conductive and nonconductive paths for current devices
[NASA-CASE-MSC-11277] c09 N71-29008

Multi-cell battery protection system
[NASA-CASE-LEW-12039-1] c44 N78-14625

ELECTRIC ROCKET ENGINES

Electric rocket engine with electron bombardment ionization chamber
[NASA-CASE-INP-04124] c28 N71-21822

ELECTRIC STIMULI

Tread drum for animals --- having an electrical shock station
[NASA-CASE-ARC-10917-1] c51 N78-27733

ELECTRIC SWITCHES

Thermionic diode switch for use in high temperature region to chop current from dc source
[NASA-CASE-NPO-10404] c03 N71-12255

Characteristics of hermetically sealed electric switch with flexible operating capability
[NASA-CASE-INP-09808] c09 N71-12518

Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing also used for leveling
[NASA-CASE-NPO-10037] c09 N71-19610

SUBJECT INDEX

ELECTRICAL MEASUREMENT

- System for checking status of several double-throw switches by readout indications
[NASA-CASE-XLA-08799] c10 N71-27272
- Pulse generating circuit for operation at very high duty cycles and repetition rates
[NASA-CASE-XNP-00745] c10 N71-28960
- High dc switch for causing abrupt, cyclic, decreases of current to operate under zero or varying gravity conditions
[NASA-CASE-LEW-10155-1] c09 N71-29035
- Zero power telemetry actuated switch for biomedical equipment
[NASA-CASE-ARC-10105] c09 N72-17153
- Development of differential pressure control system using motion of mechanical diaphragms to operate electric switch
[NASA-CASE-MFS-14216] c14 N73-13418
- Dual mode solid state power switch
[NASA-CASE-MFS-22880-1] c33 N76-31410
- Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336
- ELECTRIC TERMINALS**
- Electrical connector pin with wiping action to assure reliable contact
[NASA-CASE-XNP-04238] c09 N69-39734
- Patent data on terminal insert connector for flat electric cables
[NASA-CASE-XNP-00324] c09 N70-34596
- Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-XNP-02107] c15 N71-10809
- Electrical spot terminal assembly for printed circuit boards
[NASA-CASE-NPO-10034] c15 N71-17685
- Device for resistance soldering electrical leads to solder cups of multiple terminal block
[NASA-CASE-GSC-10913] c15 N72-22491
- Development of electric connector and pin assembly with radio frequency absorbing sleeve to reduce radio frequency interference
[NASA-CASE-XLA-02609] c09 N72-25256
- Device for configuring multiple leads --- method for connecting electric leads to printed circuit board
[NASA-CASE-MFS-22133-1] c33 N74-26977
- ELECTRIC WELDING**
- Development of electric welding torch with casing on one end to form inert gas shield
[NASA-CASE-XNP-02330] c15 N71-23798
- Electrical resistance butt welder for welding fine gauge tungsten/rhenium thermocouple wire
[NASA-CASE-LAR-10103-1] c15 N73-14468
- Electric resistance spot welding and brazing for producing metal bonds with superior mechanical and structural characteristics
[NASA-CASE-LAR-11072-1] c15 N73-20535
- Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515
- ELECTRIC WIRE**
- Apparatus for forming wire grids for electric strain gages
[NASA-CASE-XLE-00023] c15 N70-33330
- Control of fusion welding through use of thermocouple wire
[NASA-CASE-MFS-06074] c15 N71-20393
- Ablation sensor for measuring char layer recession rate using electric wires
[NASA-CASE-XLA-01794] c33 N71-21586
- Device for resistance soldering electrical leads to solder cups of multiple terminal block
[NASA-CASE-GSC-10913] c15 N72-22491
- Lead attachment for high temperature operation of electronic devices
[NASA-CASE-ERC-10224] c09 N72-25261
- Means for accommodating large overstrain in lead wires --- by storing extra length of wire in stretchable loop
[NASA-CASE-LAR-10168-1] c33 N74-22865
- Device for configuring multiple leads --- method for connecting electric leads to printed circuit board
[NASA-CASE-MFS-22133-1] c33 N74-26977
- High current electrical lead --- for thermionic converters
[NASA-CASE-LEW-10950-1] c33 N74-27683
- A tool for use in joining connectors to shielded cables
- [NASA-CASE-NPO-14296-1] c37 N78-25432
- Wire stripper
[NASA-CASE-FRC-10111-1] c37 N79-10419
- Method and apparatus for preparing multiconductor cable with flat conductors
[NASA-CASE-MFS-10946-1] c31 N79-21226
- Edge coating of flat wires
[NASA-CASE-XNP-05757-1] c31 N79-21227
- ELECTRICAL ENGINEERING**
- Counter-divider circuit for accuracy and reliability in binary circuits
[NASA-CASE-XNP-00421] c09 N70-34502
- Vibrating element electrometer producing high conversion gain by input current control of elements resonant frequency displacement amplitude
[NASA-CASE-XAC-02807] c09 N71-23021
- ELECTRICAL FAULTS**
- Overcurrent protecting circuit for push-pull transistor amplifiers
[NASA-CASE-MSC-12033-1] c09 N71-13531
- Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366
- Test method and equipment for identifying faulty cells or connections in solar cell assemblies
[NASA-CASE-NPO-10401] c03 N72-20033
- Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914
- Module failure isolation circuit for paralleled inverters
[NASA-CASE-NPO-14000-1] c33 N78-22299
- ELECTRICAL IMPEDANCE**
- High voltage transistor circuit
[NASA-CASE-XNP-06937] c09 N71-19516
- Development of electrical system for measuring high impedance
[NASA-CASE-XMS-08589-1] c09 N71-20569
- Signaling summary alarm circuit with semiconductor switch for faulty contact indications
[NASA-CASE-XLE-03061-1] c10 N71-24798
- Signal conditioning circuit apparatus --- with constant input impedance
[NASA-CASE-ARC-10348-1] c33 N75-19518
- Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525
- Solid-state current transformer
[NASA-CASE-MFS-22560-1] c33 N77-14335
- ELECTRICAL INSULATION**
- Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss
[NASA-CASE-XNP-01951] c09 N70-41929
- Method and apparatus for removing plastic insulation from wire using cryogenic equipment
[NASA-CASE-MFS-10340] c15 N71-17628
- Nonconductive tube as feed system for plasma thruster
[NASA-CASE-XLE-02902] c25 N71-21694
- Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781
- Development of process for forming insulating layer between two electrical conductor or semiconductor materials
[NASA-CASE-LEW-10489-1] c15 N72-25447
- Bio-isolated dc operational amplifier --- for bioelectric measurements
[NASA-CASE-ARC-10596-1] c33 N74-21851
- Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331
- Method of making an insulation foil
[NASA-CASE-LEW-11484-1] c24 N75-33181
- Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-MFS-22597] c36 N78-17366
- Wire stripper
[NASA-CASE-FRC-10111-1] c37 N79-10419
- Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-MFS-22517-1] c36 N79-21333
- ELECTRICAL MEASUREMENT**
- Capacitance measuring device for determining flare accuracy on tapered tubes
[NASA-CASE-XKS-03495] c14 N69-39785

ELECTRICAL PROPERTIES

SUBJECT INDEX

Bootstrap unloading circuits for sampling transducer voltage sources without drawing current
[NASA-CASE-XNP-09768] c09 N71-12516

Micromicroampere current measuring circuit, with two subminiature thermionic diodes with filament cathodes
[NASA-CASE-XNP-00384] c09 N71-13530

Low impedance apparatus for measuring electrostatic field intensity near space vehicles
[NASA-CASE-XLE-00820] c14 N71-16014

Electric current measuring apparatus design including saturable core transformer and energy storage device to avoid magnetizing current errors from transformer output winding
[NASA-CASE-IGS-02439] c14 N71-19431

High voltage divider system for attenuating high voltages to convenient levels suitable for introduction to measuring circuits
[NASA-CASE-XLE-02008] c09 N71-21583

Ablation sensor for measuring char layer recession rate using electric wires
[NASA-CASE-XLA-01794] c33 N71-21586

Current measurement by use of Hall effect generator
[NASA-CASE-XAC-01662] c14 N71-23037

Connector internal force gage for measuring strength of electrical connection
[NASA-CASE-XNP-03918] c14 N71-23087

Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244

Lightning current measuring systems
[NASA-CASE-KSC-10807-1] c33 N75-26246

Rapid activation and checkout device for batteries
[NASA-CASE-MFS-22749-1] c44 N76-14601

Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339

Trielectrode capacitive pressure transducer
[NASA-CASE-ARC-10711-2] c33 N76-21390

Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

Apparatus for measuring semiconductor device resistance
[NASA-CASE-NPO-14424-1] c33 N78-28340

ELECTRICAL PROPERTIES

Voltage drift compensation circuit for analog-to-digital converter
[NASA-CASE-XNP-04780] c08 N71-19687

Development and characteristics of electronically resettable fuse with saturable core current sensing transformer having two outside legs and center leg
[NASA-CASE-IGS-11177] c09 N71-27001

Development and characteristics of voltage regulator for connection in series with alternating current source and load using three leg, two-window transformer
[NASA-CASE-ERC-10113] c09 N71-27053

Development of system with electrical properties which vary with changes in temperature for use with feedback loop in operational amplifier circuit
[NASA-CASE-MSC-13276-1] c14 N71-27058

Electrically coupled individually encapsulated solar cell matrix
[NASA-CASE-NPO-11190] c03 N71-34044

Storage battery comprising negative plates of a wedge shaped configuration --- for preventing shape change induced malfunctions
[NASA-CASE-NPO-11806-1] c44 N74-19693

Thermocouple tape --- developed from thermoelectrically different metals
[NASA-CASE-LEW-11072-2] c35 N76-15434

Modification of the electrical and optical properties of polymers --- ion irradiation
[NASA-CASE-LEW-13027-1] c27 N79-11216

ELECTRICAL RESISTANCE

Development of electrical system for indicating optimum contact between electrode and metal surface to permit improved soldering operation
[NASA-CASE-KSC-10242] c15 N72-23497

Radio frequency source resistance measuring instruments of varied design
[NASA-CASE-NPO-11291-1] c14 N73-30388

Apparatus for measuring semiconductor device resistance
[NASA-CASE-NPO-14424-1] c33 N78-28340

ELECTRICAL RESISTIVITY

Describing method for vapor deposition of gallium arsenide films to manganese substrates to provide semiconductor devices with low resistance substrates
[NASA-CASE-XNP-01328] c26 N71-18064

Simulating operation of thermopile vacuum gage tube at high and low pressures
[NASA-CASE-XLA-02758] c14 N71-18481

Electrically conductive fluorocarbon polymers
[NASA-CASE-XLE-06774-2] c06 N72-25150

Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339

Durable antistatic coating for polymethylmethacrylate
[NASA-CASE-NPO-13867-1] c27 N78-14164

Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N79-11315

Lightweight electrically-powered flexible thermal laminate --- made of metal and nonconductive yarns
[NASA-CASE-MSC-12662-1] c33 N79-12331

Electrically conductive thermal control coatings
[NASA-CASE-GSC-12207-1] c24 N79-14156

A method and alloy for making electrical connections to conductive thin film
[NASA-CASE-GSC-12404-1] c33 N79-17135

ELECTRICITY

Thermionic converter for converting heat energy directly into electrical energy
[NASA-CASE-XLE-01903] c22 N71-23599

Method of fabricating a photovoltaic of a substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

ELECTRO-OPTICS

Electro-optical system with scan-in illuminator and scan-out photosensor for scanning variable transmittance objects
[NASA-CASE-NPO-11106] c14 N70-34697

Electro-optical system for maintaining two-axis alignment during milling operations on large tank-sections
[NASA-CASE-XNP-00908] c14 N70-40238

Automatic polarimeter capable of measuring transient birefringence changes in electro-optic materials
[NASA-CASE-XNP-08883] c23 N71-16101

Design and development of light sensing device for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11201] c14 N72-27409

Electro-optical stabilization of calibrated light source
[NASA-CASE-MSC-12293-1] c14 N72-27411

Optical conversion method --- for spacecraft television
[NASA-CASE-MSC-12618-1] c74 N78-17865

Noncontacting method for measuring angular deflection
[NASA-CASE-LAR-12178-1] c74 N79-11866

ELECTROACOUSTIC TRANSDUCERS

Transducer for monitoring oxygen flow in respirator
[NASA-CASE-FRC-10012] c14 N72-17329

Material suspension within an acoustically excited resonant chamber --- at near weightless conditions
[NASA-CASE-NPO-13263-1] c12 N75-24774

ELECTROACOUSTIC WAVES

Phonocardiogram simulator producing electrical voltage waves to control amplitude and duration between simulated sounds
[NASA-CASE-IKS-10804] c05 N71-24606

ELECTROCARDIOGRAPHY

Phonocardiogram simulator producing electrical voltage waves to control amplitude and duration between simulated sounds
[NASA-CASE-IKS-10804] c05 N71-24606

Development of instantaneous reading tachometer for measuring electrocardiogram signal rate
[NASA-CASE-MFS-20418] c14 N73-24473

Insulated electrocardiographic electrodes --- without paste electrolyte
[NASA-CASE-MSC-14339-1] c05 N75-24716

SUBJECT INDEX

ELECTRODES

- EKG and ultrasonoscope display
 [NASA-CASE-ABC-10994-2] c52 N77-15619
- ELECTROCATALYSTS**
 Electrocatalyst for oxygen reduction in low
 temperature alkaline fuel cell
 [NASA-CASE-HQM-10537-1] c06 N72-10138
 Catalyst surfaces for the chromous/chromic redox
 couple
 [NASA-CASE-LEW-13148-1] c44 N79-14538
- ELECTROCHEMICAL CELLS**
 Apparatus for measuring polymer membrane
 expansion in electrochemical cells
 [NASA-CASE-IGS-03865] c14 N69-21363
 Preventing pressure buildup in electrochemical
 cells by reacting palladium oxide with evolved
 hydrogen
 [NASA-CASE-IGS-01419] c03 N70-41864
 Nonmagnetic hermetically sealed battery case
 made of epoxy resin and woven glass tape for
 use with electrochemical cells in spacecraft
 [NASA-CASE-IGS-00886] c03 N71-11053
 Epoxy resin sealing device for electrochemical
 cells in high vacuum environments
 [NASA-CASE-IGS-02630] c03 N71-22974
 Sealed electrochemical cell with flexible casing
 for varying electrolyte level in cell
 [NASA-CASE-IGS-01513] c03 N71-23336
 Elimination of two step voltage discharge
 property of silver zinc batteries by using
 divalent silver oxide capacity of cell to
 charge anodes to monovalent silver state
 [NASA-CASE-IGS-01674] c03 N71-29129
 Flexible, frangible electrochemical cell and
 package for operation in low temperature
 environment
 [NASA-CASE-IGS-10010] c03 N72-15986
 Porous electrode for use in electrochemical cells
 [NASA-CASE-GSC-11368-1] c09 N73-32108
 Battery testing device --- for testing cells of
 multiple-cell battery
 [NASA-CASE-MPS-20761-1] c44 N74-27519
 Electrical conductivity cell and method for
 fabricating the same
 [NASA-CASE-ARC-10810-1] c33 N76-19339
 Multi-cell battery protection system
 [NASA-CASE-LEW-12039-1] c44 N78-14625
 Electrochemical cell for rebalancing redox flow
 system
 [NASA-CASE-LEW-13150-1] c44 N78-25554
 Catalyst surfaces for the chromous/chromic redox
 couple
 [NASA-CASE-LEW-13148-1] c44 N79-14538
- ELECTROCHEMISTRY**
 Electrochemically reversible silver-silver
 chloride electrode for detecting bioelectric
 potential differences generated by human
 muscles and organs
 [NASA-CASE-IMS-02872] c05 N69-21925
 Electrochemical data signal process and display
 [NASA-CASE-LAR-11922-1] c25 N78-17171
- ELECTRODE FILM BARRIERS**
 Formulated plastic separators for soluble
 electrode cells --- rubber-ion transport
 membranes
 [NASA-CASE-LEW-12358-1] c44 N79-17313
- ELECTRODEPOSITION**
 Binding layer of semiconductor particles by
 electrodeposition
 [NASA-CASE-IMP-01959] c26 N71-23043
 Electrodeposition method for producing
 crystalline material from dense gaseous medium
 [NASA-CASE-NPO-10440] c15 N72-21466
 Electrophoretic sample insertion --- device for
 uniformly distributing samples in flow path
 [NASA-CASE-MPS-21395-1] c25 N74-26948
 Multitarget sequential sputtering apparatus
 [NASA-CASE-NPO-13345-1] c37 N75-19684
- ELECTRODES**
 Hollow spherical electrode for shielding
 dielectric junction between high voltage
 conductor and insulator
 [NASA-CASE-XLE-03778] c09 N69-21542
 Electrochemically reversible silver-silver
 chloride electrode for detecting bioelectric
 potential differences generated by human
 muscles and organs
 [NASA-CASE-IMS-02872] c05 N69-21925
 Bonding method for improving contact between
 lead telluride thermoelectric elements and
 tungsten electrodes
 [NASA-CASE-IGS-04554] c15 N69-39786
 Ionization vacuum gage
 [NASA-CASE-IMP-00646] c14 N70-35666
 Accel and focus electrode design for ion engine
 with improved efficiency
 [NASA-CASE-IMP-02839] c28 N70-41922
 Including didymium hydrate in nickel hydroxide
 of positive electrode of storage batteries to
 increase ampere hour capacity
 [NASA-CASE-IGS-03505] c03 N71-10608
 Apertured electrode focusing system for ion
 sources with nonuniform plasma density
 [NASA-CASE-IMP-03332] c09 N71-10618
 Electromedical garment, applying
 vectorcardiologic type electrodes to human
 torsos for data recording during physical
 activity
 [NASA-CASE-IMP-10856] c05 N71-11189
 Electrode attached to helmets for detecting low
 level signals from skin of living creatures
 [NASA-CASE-ARC-10043-1] c05 N71-11193
 Characteristics of pressed disc electrode for
 biological measurements
 [NASA-CASE-IMS-04212-1] c05 N71-12346
 Electrode connection for n-on-p silicon solar cell
 [NASA-CASE-XLE-04787] c03 N71-20492
 Arc electrode of graphite with tantalum ball tip
 [NASA-CASE-XLE-04788] c09 N71-22987
 Electrode sealing and insulation for fuel cells
 containing caustic liquid electrolytes using
 powdered plastic and metal
 [NASA-CASE-IMS-01625] c15 N71-23022
 Automatic recording McLeod gage with three
 electrodes and solenoid valve connection
 [NASA-CASE-XLE-03280] c14 N71-23093
 Dry electrode design with wire sandwiched
 between two flexible conductive discs for
 monitoring physiological responses
 [NASA-CASE-FRC-10029] c09 N71-24618
 Development and characteristics of electrodes in
 which poisoning by organic molecules is
 prevented by ion selective electrolytic
 deposition of hydrophilic protein colloid
 [NASA-CASE-IMS-04213-1] c09 N71-26002
 Adhesive spray process for attaching biomedical
 skin electrodes
 [NASA-CASE-IMP-07658-1] c05 N71-26293
 Electrodes having array of small surfaces for
 field ionization
 [NASA-CASE-ERC-10013] c09 N71-26678
 Manufacturing process for making perspiration
 resistant-stress resistant biopotential
 electrode
 [NASA-CASE-MSC-90153-2] c05 N72-25120
 Dry electrode manufacture, using silver powder
 with cement
 [NASA-CASE-FRC-10029-2] c05 N72-25121
 Compressible electrolyte saturated sponge
 electrode for biomedical applications
 [NASA-CASE-MSC-13648] c05 N72-27103
 Electrode with multiple columnar conductors for
 limiting field emission current
 [NASA-CASE-ERC-10015-2] c10 N72-27246
 Coaxial, high density, hypervelocity plasma
 generator and accelerator using electrodes
 [NASA-CASE-MPS-20589] c25 N72-32688
 Characteristics of ion rocket engine with
 combination keeper electrode and electron baffle
 [NASA-CASE-NPO-11880] c28 N73-24783
 Silicon carbide backward diode with coated lead
 attachment
 [NASA-CASE-ERC-10224-2] c09 N73-27150
 Porous electrode for use in electrochemical cells
 [NASA-CASE-GSC-11368-1] c09 N73-32108
 High powered arc electrodes --- producing solar
 simulator radiation
 [NASA-CASE-LEW-11162-1] c33 N74-12913
 Method of making porous conductive supports for
 electrodes --- by electroforming and stacking
 nickel foils
 [NASA-CASE-GSC-11367-1] c44 N74-19692
 Insulated electrocardiographic electrodes ---
 without paste electrolyte
 [NASA-CASE-MSC-14339-1] c05 N75-24716
 Readout electrode assembly for measuring
 biological impedance
 [NASA-CASE-ARC-10816-1] c35 N76-24525

ELECTROFORMING

SUBJECT INDEX

- Gels as battery separators for soluble electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606
- Snap-in compressible biomedical electrode
[NASA-CASE-MSC-14623-1] c52 N77-28717
- Cesium thermionic converters having improved electrodes
[NASA-CASE-LEW-12038-3] c44 N78-25555
- ELECTROFORMING**
Method of electroforming a rocket chamber
[NASA-CASE-LEW-11118-1] c20 N74-32919
- ELECTROHYDRAULIC FORMING**
Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-IMP-00375] c2 c15 N70-34249
- ELECTROHYDRODYNAMICS**
Control valve for switching main stream of fluid from one stable position to another by means of electrohydrodynamic forces
[NASA-CASE-NPO-10416] c12 N71-27332
- ELECTROKINETICS**
Zeta potential flowmeter for measuring very slow to very high flows
[NASA-CASE-IMP-06509] c14 N71-23226
- ELECTROLYSIS**
Water electrolysis rocket engine with self-regulating stoichiometric fuel mixing regulator
[NASA-CASE-XGS-08729] c28 N71-14044
- Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism
[NASA-CASE-XLE-01645] c03 N71-20904
- Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N78-25391
- ELECTROLYTES**
Apparatus for measuring polymer membrane expansion in electrochemical cells
[NASA-CASE-XGS-03865] c14 N69-21363
- Electrolytically regenerative hydrogen-oxygen fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052
- Sealed electrochemical cell with flexible casing for varying electrolyte level in cell
[NASA-CASE-XGS-01513] c03 N71-23336
- Compressible electrolyte saturated sponge electrode for biomedical applications
[NASA-CASE-MSC-13648] c05 N72-27103
- ELECTROLYTIC CELLS**
Heat activated cell with aluminum anode
[NASA-CASE-LEW-11359-2] c03 N72-20034
- Actuator operated by electrolytic drive gas generator and evacuator
[NASA-CASE-NPO-11369] c15 N73-13467
- Electrolytic cell structure
[NASA-CASE-LAR-11042-1] c33 N75-27252
- Reconstituted asbestos matrix --- for use in fuel or electrolysis cells
[NASA-CASE-MSC-12568-1] c24 N76-14204
- Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N77-28470
- Catalyst surfaces for the chromium/chromic redox couple
[NASA-CASE-LEW-13148-1] c44 N79-14538
- ELECTROMAGNETIC ABSORPTION**
Optical imaging system for increasing light absorption efficiency of imaging detector
[NASA-CASE-ARC-10194-1] c23 N73-20741
- Method and apparatus for background signal reduction in opto-acoustic absorption measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411
- Electromagnetic radiation energy arrangement --- coatings for solar energy absorption and infrared reflection
[NASA-CASE-WOO-00428-1] c32 N79-19186
- ELECTROMAGNETIC FIELDS**
Tumbling motion system for object demagnetization
[NASA-CASE-XGS-02437] c15 N69-21472
- Device for high vacuum film deposition with electromagnetic ion steering
[NASA-CASE-NPO-10331] c09 N71-26701
- Metal detection system with electromagnetic transmitter with single coil and receiver with single coil
[NASA-CASE-ARC-10265-1] c10 N72-28240
- Low power electromagnetic flowmeter system producing zero output signal for zero flow
[NASA-CASE-ARC-10362-1] c14 N73-32326
- Electromagnetic flow rate meter --- for liquid metals
[NASA-CASE-LEW-10981-1] c35 N74-21018
- Microcomputerized electric field meter diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c35 N78-28411
- ELECTROMAGNETIC HAMMERS**
Method and apparatus for shaping and joining large diameter metal tubes using magnetomotive forces
[NASA-CASE-IMP-05114] c15 N71-17650
- Portable magnetomotive hammer for metal working
[NASA-CASE-IMP-03793] c15 N71-24833
- ELECTROMAGNETIC INTERFERENCE**
Sealed housing for protecting electronic equipment against electromagnetic interference
[NASA-CASE-MSC-12168-1] c09 N71-18600
- Method of treating the surface of a glass member
[NASA-CASE-GSC-12110-1] c27 N77-32308
- ELECTROMAGNETIC MEASUREMENT**
Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678
- Microcomputerized electric field meter diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c35 N78-28411
- ELECTROMAGNETIC NOISE**
Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-25258
- Audio equipment for removing impulse noise from audio signals
[NASA-CASE-NPO-11631] c10 N73-12244
- Filtering device --- removing electromagnetic noise from voice communication signals
[NASA-CASE-MFS-22729-1] c32 N76-21366
- ELECTROMAGNETIC PROPULSION**
Hypervelocity gun --- using both electric and chemical energy for projectile propulsion
[NASA-CASE-XLE-03186-1] c09 N79-21084
- ELECTROMAGNETIC PUMPS**
Multiducted electromagnetic pump for conductive liquids
[NASA-CASE-NPO-10755] c15 N71-27084
- ELECTROMAGNETIC RADIATION**
Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063
- Development of electromagnetic wave transmission line circulator and application to parametric amplifier circuits
[NASA-CASE-IMP-02140] c09 N71-23097
- Left and right hand circular electromagnetic polarization excitation by phase shifter and hybrid networks
[NASA-CASE-GSC-10021-1] c09 N71-24595
- Development of method for suppressing excitation of electromagnetic surface waves on dielectric converter antenna
[NASA-CASE-XLA-10772] c07 N71-28980
- Characteristics of microwave antenna with conical reflectors to generate plane wave front
[NASA-CASE-NPO-11661] c07 N73-14130
- Method and apparatus for measuring electromagnetic radiation
[NASA-CASE-LEW-11159-1] c14 N73-28488
- ELECTROMAGNETIC SHIELDING**
Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-MFS-13687] c09 N71-28691
- A tool for use in joining connectors to shielded cables
[NASA-CASE-NPO-14296-1] c37 N78-25432
- Wire stripper
[NASA-CASE-PRC-10111-1] c37 N79-10419
- ELECTROMAGNETIC WAVE FILTERS**
Design and characteristics of laser camera system with diffusion filter of small particles with average diameter larger than wavelength of laser light
[NASA-CASE-NPO-10417] c16 N71-33410
- ELECTROMAGNETIC WAVE TRANSMISSION**
Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites

SUBJECT INDEX

ELECTRON TUBES

- [NASA-CASE-XGS-02608] c07 N70-41678
Microwave power transmission beam safety system
[NASA-CASE-NPO-14224-1] c32 N79-10271
- ELECTROMAGNETISM**
Electromagnetic braking arrangement for
controlling rotor rotation in electric motor
[NASA-CASE-INP-06936] c15 N71-24695
- ELECTROMAGNETS**
Oscillatory electromagnetic mirror drive system
for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461
Water cooled solenoid capable of producing
magnetic field intensities up to 100 kilogauss
[NASA-CASE-INP-01951] c09 N70-81929
Magnetic element position sensing device, using
misaligned electromagnets
[NASA-CASE-XGS-07514] c23 N71-16099
Electroexplosive safe-arm initiator using
electric driven electromagnetic coils and
magnets to align charge
[NASA-CASE-LAR-10372] c09 N71-18599
Magnetic bearing --- for supplying magnetic fluxes
[NASA-CASE-GSC-11079-1] c37 N75-18574
- ELECTROMECHANICAL DEVICES**
Electromechanical actuator and its use in rocket
thrust control valve
[NASA-CASE-INP-05975] c15 N69-23185
Power controlled bimetallic electromechanical
actuator for accurate, timely, and reliable
response to remote control signal
[NASA-CASE-INP-09776] c09 N69-39929
Electro-mechanical circuit for converting
floating intelligence signal to common
electrically grounded intelligence recorder
[NASA-CASE-XAC-00086] c09 N70-33182
Describing device for velocity control of
electromechanical drive mechanism of scanning
mirror of interferometer
[NASA-CASE-XGS-03532] c14 N71-17627
Mechanical actuator wherein linear motion
changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045
Solid state force measuring electromechanical
transducers made of piezoresistive materials
[NASA-CASE-ERC-10088] c26 N71-25490
Electromechanical control actuator system using
double differential screws
[NASA-CASE-ERC-10022] c15 N71-26635
Miniature electromechanical junction transducer
operating on piezoelectric effect and
utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334
Service life of electromechanical device for
generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
Electromechanical actuator for producing
mechanical force and/or motion in response to
electrical signals
[NASA-CASE-NPO-11738-1] c09 N73-30185
Electro-mechanical sine/cosine generator
[NASA-CASE-LAR-11389-1] c33 N77-26387
Rotary electric device
[NASA-CASE-GSC-12138-1] c33 N79-20314
- ELECTROMETERS**
Vibrating element electrometer producing high
conversion gain by input current control of
elements resonant frequency displacement
amplitude
[NASA-CASE-XAC-02807] c09 N71-23021
- ELECTROMOTIVE FORCES**
Heat activated emf cells with aluminum anode
[NASA-CASE-LEW-11359] c03 N71-28579
- ELECTRON BEAM WELDING**
Portable electron beam welding chamber
[NASA-CASE-LEW-11531] c15 N71-14932
Development of device to prevent high voltage
arcing in electron beam welding
[NASA-CASE-INP-08522] c15 N71-19486
- ELECTRON BEAMS**
Using electron beam switching for brushless
motor commutation
[NASA-CASE-XGS-01451] c09 N71-10677
Electron beam scanning system for improved image
definition and reduced power requirements for
video signal transmission
[NASA-CASE-ERC-10552] c09 N71-12539
Electron beam deflection devices for measuring
electric fields
[NASA-CASE-INP-10289] c14 N71-23699
- Apparatus to determine electric field strength
by measuring deflection of electron beam
impinging on target
[NASA-CASE-INP-06617] c09 N71-24843
Characteristics of infrared photodetectors
manufactured from semiconductor material
irradiated by electron beam
[NASA-CASE-LAR-10728-1] c14 N73-12445
Electron beam controller --- using magnetic
field to refocus spent electron beam in
microwave oscillator tube
[NASA-CASE-LEW-11617-1] c33 N74-10195
Image tube --- deriving electron beam replica of
image
[NASA-CASE-GSC-11602-1] c33 N74-21850
Very high intensity light source using a cathode
ray tube --- electron beams
[NASA-CASE-INP-01296] c33 N75-27250
- ELECTRON BOMBARDMENT**
Improved cathode containing barium carbonate
block and heated tungsten screen for electron
bombardment ion thruster
[NASA-CASE-XLE-07087] c06 N69-39889
Device and method for particle bombardment of
specimens in electron microscope and
measurement of beam intensities
[NASA-CASE-XGS-01725] c14 N69-39982
Electric rocket engine with electron bombardment
ionization chamber
[NASA-CASE-INP-04124] c28 N71-21822
Electronic cathodes for use in electron
bombardment ion thrusters
[NASA-CASE-XLE-04501] c09 N71-23190
Single grid accelerator system for electron
bombardment type ion thruster
[NASA-CASE-XLE-10453-2] c28 N73-27699
Soft X-ray laser using crystal channels as
distributed feedback cavities
[NASA-CASE-NPO-13532-2] c36 N78-25409
- ELECTRON DISTRIBUTION**
Measurement of plasma temperature and density
using radiation absorption
[NASA-CASE-ARC-10598-1] c75 N74-30156
- ELECTRON EMISSION**
Vacuum thermionic converter with short-circuited
triodes and increased electron transmission
and conversion efficiency
[NASA-CASE-XLE-01015] c03 N69-39898
- ELECTRON FLUX DENSITY**
Device and method for particle bombardment of
specimens in electron microscope and
measurement of beam intensities
[NASA-CASE-XGS-01725] c14 N69-39982
- ELECTRON IRRADIATION**
Electrostatic ion engines using high velocity
electrons to ionize propellant
[NASA-CASE-XLE-00376] c28 N70-37245
- ELECTRON MICROSCOPES**
Device and method for particle bombardment of
specimens in electron microscope and
measurement of beam intensities
[NASA-CASE-XGS-01725] c14 N69-39982
Method of forming aperture plate for electron
microscope
[NASA-CASE-ARC-10448-2] c74 N75-12732
Electron microscope aperture system
[NASA-CASE-ARC-10448-3] c35 N77-14408
- ELECTRON PHOTON CASCADES**
Resistive anode image converter
[NASA-CASE-HQN-10876-1] c33 N76-27473
- ELECTRON PLASMA**
Apparatus for producing highly conductive, high
temperature electron plasma with homogenous
temperature and pressure distribution
[NASA-CASE-XLA-00147] c25 N70-34661
- ELECTRON SOURCES**
Electron microscope aperture system
[NASA-CASE-ARC-10448-3] c35 N77-14408
- ELECTRON TRANSFER**
Method for treating metal surfaces to prevent
secondary electron transmission
[NASA-CASE-INP-09469] c24 N71-25555
- ELECTRON TRANSITIONS**
Diatomic infrared gasdynamic laser --- for
producing different wavelengths
[NASA-CASE-ARC-10370-1] c36 N75-31426
- ELECTRON TUBES**
Direct radiation cooling of linear beam
collector tubes

ELECTRON TUNNELING

SUBJECT INDEX

[NASA-CASE-INP-09227] c15 N69-24319
 Refractory filament series circuitry for radiant heater
 [NASA-CASE-XLE-00387] c33 N70-34812
ELECTRON TUNNELING
 Doped Josephson tunneling junction for use in a sensitive IR detector
 [NASA-CASE-NPO-13348-1] c33 N75-31332
ELECTRONIC CONTROL
 Electronic and mechanical scanning control system for monopulse tracking antenna
 [NASA-CASE-IGS-05582] c07 N69-27460
 Electronic circuit system for controlling electric motor speed
 [NASA-CASE-XMP-01129] c09 N70-38712
 Scanning signal phase and amplitude electronic control device with hybrid T waveguide junction
 [NASA-CASE-NPO-10302] c10 N71-26142
 Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
 [NASA-CASE-LEW-10689-1] c28 N71-26173
 Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components
 [NASA-CASE-NPO-10556] c14 N71-27185
 Control and information system for digital telemetry data using analog converter to digitize sensed parameter values
 [NASA-CASE-NPO-11016] c08 N72-31226
ELECTRONIC EQUIPMENT
 Electronic and mechanical scanning control system for monopulse tracking antenna
 [NASA-CASE-IGS-05582] c07 N69-27460
 Development of pulse-activated polarographic hydrogen detector
 [NASA-CASE-XMP-06531] c14 N71-17575
 Development of stable electronic amplifier adaptable for monolithic and thin film construction
 [NASA-CASE-IGS-02812] c09 N71-19466
 Development and characteristics of oscillating static inverter
 [NASA-CASE-IGS-05289] c09 N71-19470
 Development of electromagnetic wave transmission line circulator and application to parametric amplifier circuits
 [NASA-CASE-XMP-02140] c09 N71-23097
 Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
 [NASA-CASE-IGS-00740] c07 N71-23098
 Electronic cathodes for use in electron bombardment ion thrusters
 [NASA-CASE-XLE-04501] c09 N71-23190
 Method and apparatus for adjusting thermal conductance in electronic components for space use
 [NASA-CASE-INP-05524] c33 N71-24876
 Development and characteristics of solid state acoustic variable time delay line using direct current voltage and radio frequency pulses
 [NASA-CASE-ERC-10032] c10 N71-25900
 Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
 [NASA-CASE-XMS-06497] c14 N71-26244
 Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem
 [NASA-CASE-LAR-10204] c14 N71-27215
 Device for rapid adjustment and maintenance of temperature in electronic components
 [NASA-CASE-INP-02792] c14 N71-28958
 Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
 [NASA-CASE-NPO-10769] c08 N72-11171
 Readily assembled universal environment housing for electronic equipment
 [NASA-CASE-KSC-10031] c15 N72-22486
 Lead attachment for high temperature operation of electronic devices
 [NASA-CASE-ERC-10224] c09 N72-25261
 Development of method and apparatus for detecting surface ions on silicon diodes and transistors

[NASA-CASE-ERC-10325] c15 N72-25457
 Development and characteristics of data decoder to process convolution encoded information
 [NASA-CASE-NPO-11371] c08 N73-12177
 Characteristics of digital data processor using pulse from clock source to derive binary singles to show state of various indicators in processor
 [NASA-CASE-GSC-10975-1] c08 N73-13187
 Development and characteristics for automatically displaying digits in any desired order using optical techniques
 [NASA-CASE-YKS-00348] c09 N73-14215
 Thermochromic compositions for detecting heat levels in electronic circuits and devices
 [NASA-CASE-NPO-10764-1] c14 N73-14428
 Development of phase control coupling for use with phased array antenna
 [NASA-CASE-ERC-10285] c10 N73-16206
 Device for locating electrically nonlinear objects and determining distance to object by FM signal transmission
 [NASA-CASE-KSC-10108] c14 N73-25461
 Electronic strain level counter on in-flight aircraft
 [NASA-CASE-LAR-10756-1] c32 N73-26910
 Automatic vehicle location system
 [NASA-CASE-NPO-11850-1] c32 N74-12912
 Automatic focus control for facsimile cameras
 [NASA-CASE-LAR-11213-1] c35 N75-15014
 Electronic analog divider
 [NASA-CASE-LEW-11881-1] c33 N77-17354
 Improved subcutaneous electrode structure
 [NASA-CASE-ABC-11117-1] c52 N79-15576
ELECTRONIC EQUIPMENT TESTS
 Apparatus for automatically testing analog to digital converters for open and short circuits
 [NASA-CASE-XLA-06713] c14 N71-28991
 Signal conditioner test set
 [NASA-CASE-KSC-10750-1] c35 N75-12270
ELECTRONIC FILTERS
 Self-tuning electronic filter for maintaining constant bandwidth and center frequency gain
 [NASA-CASE-ABC-10264-1] c09 N73-20231
 Capacitance multiplier and filter synthesizing network
 [NASA-CASE-NPO-11948-1] c33 N74-32712
 Notch filter
 [NASA-CASE-NPS-23303-1] c32 N77-18307
ELECTRONIC MODULES
 Thermal conductive, electrically insulated cleavable adhesive connection between electronic module and heat sink
 [NASA-CASE-XMS-02087] c09 N70-41717
 Fabrication methods for matrices of solar cell submodules
 [NASA-CASE-XMP-05821] c03 N71-11056
 Development and characteristics of cooling system to maintain temperature of rack mounted electronic modules
 [NASA-CASE-MSC-12389] c33 N71-29052
 Tool for use in lifting pin supported objects
 [NASA-CASE-NPO-13157-1] c37 N74-32918
 Phase substitution of spare converter for a failed one of parallel phase staggered converters
 [NASA-CASE-NPO-13812-1] c33 N77-30365
 Method of making encapsulated solar cell modules
 [NASA-CASE-LEW-12185-1] c44 N78-25528
 Electronically scanned pressure sensor module with in SITU calibration capability
 [NASA-CASE-LAR-12230-1] c35 N79-14347
ELECTRONIC PACKAGING
 Electrical feedthrough connection for printed circuit boards
 [NASA-CASE-XMP-01483] c14 N69-27431
 Capacitor fabrication by solidifying mixture of ferromagnetic metal particles, nonferromagnetic particles, and dielectric material
 [NASA-CASE-LEW-10364-1] c09 N71-13522
 Method of evaluating moisture barrier properties of materials used in electronics encapsulation
 [NASA-CASE-NPO-10051] c18 N71-24934
 Electrical connections for thin film hybrid microcircuits
 [NASA-CASE-XMS-02182] c10 N71-28783
 Flexible, frangible electrochemical cell and package for operation in low temperature

SUBJECT INDEX

ELONGATION

- environment
[NASA-CASE-XGS-10010] c03 N72-15986
- Development and characteristics of hermetically sealed coaxial package for containing microwave semiconductor components
[NASA-CASE-GSC-10791-1] c15 N73-14469
- Techniques for packaging and mounting printed circuit boards
[NASA-CASE-NFS-21919-1] c10 N73-25243
- Integrated circuit package with lead structure and method of preparing the same
[NASA-CASE-NFS-21374-1] c33 N74-12951
- Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918
- ELECTRONIC RECORDING SYSTEMS**
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339
- ELECTRONIC TRANSDUCERS**
Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
[NASA-CASE-XMF-02433] c14 N71-10616
- Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ABC-10132-1] c09 N71-24597
- Circuit design for failure sensing and protecting low voltage electric generator and power transmission networks
[NASA-CASE-GSC-10114-1] c10 N71-27366
- Electromagnetic transducer recording head having a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392
- Distributed-switch dicke radiometer
[NASA-CASE-GSC-12219-1] c43 N78-22436
- ELECTROPHORESIS**
Electrophoretic sample insertion --- device for uniformly distributing samples in flow path
[NASA-CASE-NFS-21395-1] c25 N74-26948
- Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-NFS-21394-1] c34 N74-27744
- Automatic multiple-sample applicator and electrophoresis apparatus
[NASA-CASE-ABC-10991-1] c25 N78-14104
- Portable electrophoresis apparatus using minimum electrolyte
[NASA-CASE-NPO-13274-1] c25 N79-10163
- Microelectrophoretic apparatus and process
[NASA-CASE-ABC-11121-1] c25 N79-14169
- A method for separating biological cells
[NASA-CASE-NFS-23883-1] c51 N79-21743
- ELECTROPHOTOMETRY**
Method and photodetector device for locating abnormal voids in low density materials
[NASA-CASE-NFS-20044] c14 N71-28993
- ELECTROPHYSIOLOGY**
Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses
[NASA-CASE-FRC-10029] c09 N71-24618
- ELECTROPLATING**
Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903
- Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-NFS-13687] c09 N71-28691
- Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569
- ELECTROSTATIC CHARGE**
Charged particle analyzer with periodically varying voltage applied across electrostatic deflection members
[NASA-CASE-YAC-05506-1] c24 N71-16095
- Electrostatic measurement system --- for contact-electrifying a dielectric
[NASA-CASE-NFS-22129-1] c33 N75-18477
- Internal combustion engine with electrostatic discharging fuels
[NASA-CASE-NPO-13798-1] c37 N77-25535
- ELECTROSTATIC ENGINES**
Colloidal particle generator for electrostatic engine for propelling space vehicles
[NASA-CASE-XLE-00817] c28 N70-33265
- Encapsulated heater forming hollow body for cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422
- Electrostatic ion engines using high velocity electrons to ionize propellant
[NASA-CASE-XLE-00376] c28 N70-37245
- Electron bombardment ion rocket engine with improved propellant introduction system
[NASA-CASE-XLE-02066] c28 N71-15661
- ELECTROSTATIC GENERATORS**
Electrostatic modulator for communicating through plasma sheath formed around spacecraft during reentry
[NASA-CASE-XLA-01400] c07 N70-41331
- ELECTROSTATIC PRECIPITATORS**
Zero gravity separator
[NASA-CASE-LAR-10344-1] c35 N76-33470
- Fine particulate capture device
[NASA-CASE-LEW-11583-1] c35 N79-17192
- ELECTROSTATIC PROBES**
Low impedance apparatus for measuring electrostatic field intensity near space vehicles
[NASA-CASE-XLE-00820] c14 N71-16014
- ELECTROSTATIC PROPULSION**
Nuclear electric generator for accelerating charged propellant particles in electrostatic propulsion system
[NASA-CASE-XLE-00818] c22 N70-34248
- High voltage insulators for direct current in acceleration system of electrostatic thruster
[NASA-CASE-XLE-01902] c28 N71-10574
- Electrostatic microthrust propulsion system with annular slit colloid thruster
[NASA-CASE-GSC-10709-1] c28 N71-25213
- ELECTROSTATIC SHIELDING**
Ion beam thruster shield
[NASA-CASE-LEW-12082-1] c20 N77-10148
- Shielded conductor cable system
[NASA-CASE-MSC-12745-1] c33 N77-13338
- ELECTROSTATICS**
Controllable high voltage source having fast settling time
[NASA-CASE-GSC-11844-1] c33 N75-19522
- ELECTROTHERMAL ENGINES**
Electrothermal rocket engine using resistance heated heat exchanger
[NASA-CASE-XLE-00267] c28 N70-33356
- High resistance cross flow heat exchangers for electrothermal rocket engines
[NASA-CASE-XLE-01783] c28 N70-34175
- ELEVATION**
Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-NFS-14017] c14 N71-26627
- Automatic braking device for rapidly transferring humans or materials from elevated location
[NASA-CASE-XRS-07814] c15 N71-27067
- ELEVATORS (LIFTS)**
Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-YAC-00399] c11 N70-34815
- Guide member for stabilizing cable of open shaft elevator
[NASA-CASE-KSC-10513] c15 N72-25453
- ELEVONS**
Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
- ELLIPSES**
Ellipsograph for describing and cutting ellipses with minimal axial dimensions
[NASA-CASE-XLA-03102] c14 N71-21079
- ELLIPSOIDETERS**
Remote sensing of vegetation and soil using microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529
- ELONGATION**
Strain gage measurement of elongation due to thermally and mechanically induced stresses
[NASA-CASE-XGS-04478] c14 N71-24233
- Amplifying ribbon extensometer
[NASA-CASE-LAR-11825-1] c35 N77-22449

ELUTION

SUBJECT INDEX

ELUTION

Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844

EMERGENCIES

Silent alarm system for multiple room facility or school
[NASA-CASE-NPO-11307-1] c10 N73-30205

Emergency space-suit helmet
[NASA-CASE-HSC-10954-1] c54 N78-18761

Emergency space-suit helmet
[NASA-CASE-XMS-04673-1] c54 N79-21766

EMERGENCY BREATHING TECHNIQUES

Pulmonary resuscitation method and apparatus with adjustable pressure regulator
[NASA-CASE-XMS-01115] c05 N70-39922

EMERGENCY LIFE SUSTAINING SYSTEMS

Development and characteristics of inflatable structure to provide escape from orbit for spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851

Three transceiver lunar emergency system to relay voice communication of astronaut
[NASA-CASE-MFS-21042] c07 N72-25171

Emergency descent device
[NASA-CASE-MFS-23074-1] c54 N77-21844

EMISSION SPECTRA

Emission spectroscopy method for contamination monitoring of inert gas metal arc welding
[NASA-CASE-XMP-02039] c15 N71-15871

EMITTANCE

High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875

EMITTERS

Inverted geometry transistor for use with monolithic integrated circuit
[NASA-CASE-ARC-10330-1] c09 N73-32112

EMULSIONS

Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-MFS-20095] c24 N72-11595

ENAMELS

Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-MFS-22324-1] c27 N75-27160

Method for applying photographic resists to otherwise incompatible substrates
[NASA-CASE-HSC-18107-1] c35 N79-19319

ENCAPSULATING

Development of bacteriostatic conformal coating and methods of application
[NASA-CASE-GSC-10007] c18 N71-16046

Flexible, repairable, portable composition for encapsulating electric connectors
[NASA-CASE-XGS-05180] c18 N71-25881

Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992

Electrically coupled individually encapsulated solar cell matrix
[NASA-CASE-NPO-11190] c03 N71-34044

Method of making encapsulated solar cell modules
[NASA-CASE-LEW-12185-1] c44 N78-25528

ENCLOSURES

Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-XMP-09422] c07 N71-19436

Totally confined explosive welding
[NASA-CASE-LAR-10941-2] c37 N79-13364

ENDOSCOPES

Borescope with adjustable hinged telescoping optical system
[NASA-CASE-MFS-15162] c14 N72-32452

Apparatus for endoscopic examination
[NASA-CASE-NPO-14092-1] c52 N79-19678

ENDOTHERMIC REACTIONS

Sensor device with switches for measuring surface recession of charring and noncharring ablators
[NASA-CASE-XLA-01781] c14 N69-39975

ENEMY PERSONNEL

Development of electronic detection system for remotely determining number and movement of enemy personnel
[NASA-CASE-ARC-10097-2] c07 N73-25160

ENERGY ABSORPTION

Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-34861

Low onset rate energy absorber in form of strut assembly for crew couch of Apollo command module
[NASA-CASE-HSC-12279-1] c15 N70-35679

Air brake device for absorbing and measuring power from rotating shafts
[NASA-CASE-XLE-00720] c14 N70-40201

Design and development of double acting shock absorber for spacecraft docking operations
[NASA-CASE-XMS-03722] c15 N71-21530

Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
[NASA-CASE-XMP-10040] c15 N71-22877

Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146

Energy absorption device in high precision gear train for protection against damage to components caused by stop loads
[NASA-CASE-XMP-01848] c15 N71-28959

Shock absorber for use as protective barrier in impact energy absorbing system
[NASA-CASE-NPO-10671] c15 N72-20443

High energy absorption docking system design for docking large spacecraft
[NASA-CASE-MFS-20863] c31 N73-26876

Metal shearing energy absorber
[NASA-CASE-HQN-10638-1] c15 N73-30460

ENERGY CONSERVATION

Remote platform power conserving system
[NASA-CASE-GSC-11182-1] c15 N75-13007

ENERGY CONVERSION

Thermoelectric power conversion by liquid metal flowing through magnetic field
[NASA-CASE-XMP-00644] c03 N70-36803

Concentrator device for controlling direction of solar energy onto energy converters
[NASA-CASE-XLE-01716] c09 N70-40234

Device for converting electromagnetic wave energy into electric power
[NASA-CASE-GSC-11394-1] c09 N73-32109

Electric power generation system directory from laser power.
[NASA-CASE-NPO-13308-1] c36 N75-30524

Mechanical thermal motor
[NASA-CASE-MFS-23062-1] c37 N77-12402

Low to high temperature energy conversion system
[NASA-CASE-NPO-13510-1] c44 N77-32581

Solar energy collection system
[NASA-CASE-NPO-13810-1] c44 N77-32582

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

An improved solar energy receiver for a stirling engine
[NASA-CASE-NPO-14619-1] c44 N79-20513

ENERGY CONVERSION EFFICIENCY

Vacuum thermionic converter with short-circuited triodes and increased electron transmission and conversion efficiency
[NASA-CASE-XLE-01015] c03 N69-39898

Direct conversion of thermal energy into electrical energy using crossed electric and magnetic fields
[NASA-CASE-XLE-00212] c03 N70-34134

Increasing power conversion efficiency of electronic amplifiers by power supply switching
[NASA-CASE-XMS-00945] c09 N71-10798

Energy storage apparatus
[NASA-CASE-GSC-12030-1] c44 N78-24608

Solar cell system having alternating current output
[NASA-CASE-LEW-12806-1] c44 N78-25553

Self-reconfiguring solar cell system
[NASA-CASE-LEW-12586-1] c44 N78-27520

ENERGY DISSIPATION

Energy dissipating shock absorbing system for land payload recovery or vehicle braking
[NASA-CASE-XLA-00754] c15 N70-34850

Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

ENERGY DISTRIBUTION

Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994

ENERGY POLICY

Solar energy power system
[NASA-CASE-NFS-21628-2] c44 N76-23675
Thermal energy storage system --- operating on superheating of liquids
[NASA-CASE-NFS-23167-1] c44 N76-31667
Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking
[NASA-CASE-NFS-23267-1] c35 N77-20401
Solar energy collection system
[NASA-CASE-NPO-13579-2] c44 N77-20565
Low cost solar energy collection system
[NASA-CASE-NPO-13579-3] c44 N77-20566
Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933
Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580
Selective coating for solar panels --- using black chrome and black nickel
[NASA-CASE-LEW-12159-1] c44 N78-19599
Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609
Solar pond
[NASA-CASE-NPO-13581-2] c44 N78-31525
Non-tracking solar energy collector system
[NASA-CASE-NPO-13813-1] c44 N78-31526
Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527
Primary reflector for solar energy collection systems
[NASA-CASE-NPO-13579-4] c44 N79-14529

ENERGY SOURCES

Energy source with tantalum capacitors in parallel and miniature silver oxide button cells for initiating pyrotechnic devices on spacecraft and rocket vehicles
[NASA-CASE-LAR-10367-1] c03 N70-26817
Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311
Controllable high voltage source having fast settling time
[NASA-CASE-GSC-11844-1] c33 N75-19522

ENERGY STORAGE

Switching mechanism with energy stored in coil spring
[NASA-CASE-XGS-00473] c03 N70-38713
Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331
Mechanical energy storage device for hip disarticulation
[NASA-CASE-ARC-10916-1] c52 N78-10686
Combined solar collector and energy storage system
[NASA-CASE-LAR-12205-1] c44 N78-23567
Energy storage apparatus
[NASA-CASE-GSC-12030-1] c44 N78-24608
A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-3] c44 N78-25560
Rotatable mass for a flywheel
[NASA-CASE-NFS-23051-1] c37 N79-10422
Atomic hydrogen storage method and apparatus
[NASA-CASE-LEW-12081-3] c44 N79-18455

ENERGY TECHNOLOGY

Solar energy collection system
[NASA-CASE-NPO-13579-2] c44 N77-20565
Solar energy collection system
[NASA-CASE-NPO-13810-1] c44 N77-32582
Method for producing solar energy panels by automation
[NASA-CASE-LEW-12541-1] c44 N78-25529
Hydrogen-fueled engine
[NASA-CASE-NPO-13763-1] c44 N78-33526
Surfactant-assisted liquefaction of particulate carbonaceous substances
[NASA-CASE-NPO-13904-1] c25 N79-11152
Back wall solar cell
[NASA-CASE-LEW-12236-2] c44 N79-14528
Solar cell module assembly jig
[NASA-CASE-XGS-00829-1] c44 N79-19447

ENERGY TRANSFER

Solar energy absorber

[NASA-CASE-NFS-22743-1] c44 N76-22657
ENGINE ANALYZERS
Indicated mean-effective pressure instrument
[NASA-CASE-LEW-12661-1] c35 N79-14345

ENGINE CONTROL

Direct current electromotive system for regenerative braking of electric motor
[NASA-CASE-XMP-01096] c10 N71-16030
Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930
Power control for hot gas engines
[NASA-CASE-NPO-14220-1] c37 N78-25430

ENGINE COOLANTS

Apparatus for cooling and injecting hypergolic propellants into combustion chamber of small rocket engine
[NASA-CASE-XLB-00303] c15 N70-36535
Injector manifold assembly for bipropellant rocket engines providing for fuel propellant to serve as coolant
[NASA-CASE-XMP-00148] c28 N70-38710

ENGINE DESIGN

Design and development of gas turbine combustion unit with nozzle guide vanes for introducing diluent air into combustion gases
[NASA-CASE-XLB-103477-1] c28 N71-20330
Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XMP-02923] c28 N71-23081
Space vehicle system
[NASA-CASE-HSC-12561-1] c18 N76-17185
Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131
Solid propellant motor
[NASA-CASE-NPO-11458A] c20 N78-32179
Hydrogen-fueled engine
[NASA-CASE-NPO-13763-1] c44 N78-33526

ENGINE FAILURE

System for monitoring presence of neutrals in streams of ions - ion engine control
[NASA-CASE-XMP-02592] c24 N71-20518

ENGINE INLETS

Variably positioned guide vanes for aerodynamic choking
[NASA-CASE-LAR-10642-1] c07 N74-31270
The engine air intake system
[NASA-CASE-ARC-10761-1] c07 N77-18154

ENGINE MONITORING INSTRUMENTS

System for monitoring presence of neutrals in streams of ions - ion engine control
[NASA-CASE-XMP-02592] c24 N71-20518

ENGINE NOISE

Variably positioned guide vanes for aerodynamic choking
[NASA-CASE-LAR-10642-1] c07 N74-31270
Apparatus and method for jet noise suppression
[NASA-CASE-LAR-11903-1] c07 N77-15036
Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055

ENGINE PARTS

Gas turbine engine with convertible accessories
[NASA-CASE-LEW-12390-1] c07 N78-17056

ENGINE STARTERS

A portable device particularly suited for use in starting air-start units for aircraft
[NASA-CASE-PRC-10113-1] c09 N78-19166

ENGINE TESTS

Electric propulsion engine test chamber
[NASA-CASE-XLB-00252] c11 N70-34844

ENGINEERING DRAWINGS

High-temperature, high-pressure spherical segment valve
[NASA-CASE-XAC-00074] c15 N70-34817
Graphic illustration of lifting body design
[NASA-CASE-PRC-10063] c01 N71-12217
Specifications and drawings for semipassive optical communication system
[NASA-CASE-XLA-01090] c07 N71-12389
Method of making molded electric connector for use with flat conductor cables
[NASA-CASE-XMP-03498] c15 N71-15986

ENGINES

A phase-angle controller for stirling engines
[NASA-CASE-NPO-14388-1] c37 N79-17217

ENTHALPY

Measuring conductive heat flow and thermal

ENTRAINMENT

SUBJECT INDEX

conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156

ENTRAINMENT
Water separator
[NASA-CASE-XMS-01295-1] c37 N79-21345

ENVIRONMENTAL SIMULATION
Method and apparatus for applying compressional forces to skeletal structure of subject to simulate force during ambulatory conditions
[NASA-CASE-ABC-10100-1] c05 N71-24738
Gravity environment simulation by locomotion and restraint aid for studying manual operation performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619

ENVIRONMENTAL SIMULATORS
Space environment simulator for testing spacecraft components under aerospace conditions
[NASA-CASE-NPO-10141] c11 N71-24964

ENVIRONMENTAL CONTROL
Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XMF-03212] c15 N71-22721
Development and characteristics of thermal sensitive panel for controlling ratio of solar absorptivity to surface emissivity for space vehicle temperature control
[NASA-CASE-XLA-07728] c33 N71-22890
Dual solid cryogens for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725
Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169
Test chamber for determining decomposition and autoignition of materials used in spacecraft under controlled environmental conditions
[NASA-CASE-KSC-10198] c11 N71-28629
Readily assembled universal environment housing for electronic equipment
[NASA-CASE-KSC-10031] c15 N72-22486
Environmentally controlled suit for working in sterile chamber
[NASA-CASE-LAR-10076-1] c05 N73-20137
Dual stage check valve for cryogenic supply systems used in space flight environmental control system
[NASA-CASE-MSC-13587-1] c15 N73-30459
Spacecraft with artificial gravity and earthlike atmosphere
[NASA-CASE-LEW-11101-1] c31 N73-32750

ENVIRONMENTAL ENGINEERING
Thermal control wall panel with application to spacecraft cabins
[NASA-CASE-XLA-01243] c33 N71-22792

ENVIRONMENTAL MONITORING
System for near real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N78-17529

ENVIRONMENTAL TESTS
Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042
Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161
Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985
Multiaxes vibration device for making vibration tests along orthogonal axes of test specimen
[NASA-CASE-NFS-20242] c14 N73-19421

ENVIRONMENTS
Hermetically sealed elbow actuator for use in severe environments
[NASA-CASE-NFS-14710] c09 N72-22195

ENZYME ACTIVITY
Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions

[NASA-CASE-XGS-05533] c04 N69-27487
Enzymatic luminescent bioassay method for determining bacterial levels in urine
[NASA-CASE-GSC-11092-2] c04 N73-27052

ENZYMES
Protein sterilization of firefly luciferase without denaturation
[NASA-CASE-GSC-10225-1] c06 N73-27086

EPICYCLOIDS
Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377

EPITAXY
Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLE-02545-1] c76 N79-21910

EPOXY COMPOUNDS
Synthesis of siloxane containing epoxy polymers with low dielectric properties
[NASA-CASE-NFS-13994-1] c06 N71-11240
Synthesis of siloxane containing epoxide and diamine polymers
[NASA-CASE-NFS-13994-2] c06 N72-25148
Fire protection covering for small diameter missiles
[NASA-CASE-ABC-11104-1] c15 N78-13110

EPOXY RESINS
Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-XGS-00886] c03 N71-11053
Epoxy resin sealing device for electrochemical cells in high vacuum environments
[NASA-CASE-XGS-02630] c03 N71-22974
Cold metal hydroforming techniques using epoxy molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346
Miniature electromechanical junction transducer operating on piezoelectric effect and utilizing epoxy for stress coupling component
[NASA-CASE-BBC-10087] c14 N71-27334
Infusible polymer production from reaction of polyfunctional epoxy resins with polyfunctional aziridine compounds
[NASA-CASE-NPO-10701] c06 N71-28620
Method of repairing discontinuity in fiberglass structures
[NASA-CASE-LAR-10416-1] c24 N79-30001
Transparent fire resistant polymeric structures
[NASA-CASE-ABC-10813-1] c27 N76-16230

EQUIPMENT
Binetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids
[NASA-CASE-ABC-10441-1] c35 N74-15126

EQUIPMENT SPECIFICATIONS
Differential pressure cell insensitive to changes in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816
High-temperature, high-pressure spherical segment valve
[NASA-CASE-XAC-00074] c15 N70-34817
Remote-reading torque meter for use where high horsepower are transmitted at high rotative speeds
[NASA-CASE-XLE-00503] c14 N70-34818
Magnetically centered liquid column float
[NASA-CASE-XAC-00030] c14 N70-34820
Electric propulsion engine test chamber
[NASA-CASE-XLE-00252] c11 N70-34844
Channel-type shell construction for rocket engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860
Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-34861
Slit regulated gas journal bearing
[NASA-CASE-XMF-00476] c15 N70-38620
Specifications and drawings for semipassive optical communication system
[NASA-CASE-XLA-01090] c07 N71-12389
Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMF-06589] c05 N71-23159
Development of vortex fluid amplifier for throttling rocket exhaust
[NASA-CASE-LEW-10374-1] c28 N73-13773

SUBJECT INDEX

EUTECTIC ALLOYS

- Simplified technique and device for producing industrial grade synthetic diamonds
[NASA-CASE-MFS-20698-2] c15 N73-19457
- Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature
[NASA-CASE-LAR-10426-1] c09 N74-19528
- Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-MFS-21394-1] c34 N74-27744
- Thermocouple tape --- developed from thermoelectrically different metals
[NASA-CASE-LBW-11072-2] c35 N76-15434
- Field effect transistor and method of construction thereof
[NASA-CASE-MFS-23312-1] c33 N78-27326
- EQUIPOTENTIALS**
Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195
- Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421
- ERGOMETERS**
Development of restraint system for securing personnel to ergometer while exercising under weightless conditions
[NASA-CASE-MFS-21046-1] c14 N73-27377
- Versatile ergometer with work load control
[NASA-CASE-MFS-21109-1] c05 N73-27941
- Tilting table for testing human body in variety of positions while exercising on ergometer or other biomedical devices
[NASA-CASE-MFS-21010-1] c05 N73-30078
- Pneumatic foot pedal operated fluidic exercising device
[NASA-CASE-MSC-11561-1] c05 N73-32014
- Ergometer calibrator --- for any ergometer utilizing rotating shaft
[NASA-CASE-MFS-21045-1] c35 N75-15932
- EROSION**
Thermal shock and erosion resistant tantalum carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206
- ERROR ANALYSIS**
Development of computer program for estimating reliability of self-repair and fault-tolerant systems with respect to selected system and mission parameters
[NASA-CASE-MPO-13086-1] c15 N73-12495
- Bit error rate measurement above and below bit rate tracking threshold
[NASA-CASE-MSC-12743-1] c32 N79-10263
- ERROR CORRECTING DEVICES**
Error correction circuitry for binary signal channels
[NASA-CASE-MNP-03263] c09 N71-18843
- Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
[NASA-CASE-MNP-01306] c07 N71-20814
- Description of error correcting methods for use with digital data computers and apparatus for encoding and decoding digital data
[NASA-CASE-MNP-02748] c08 N71-22749
- Failure detection and control means for improved drift performance of a gimbaled platform system
[NASA-CASE-MFS-23551-1] c04 N76-26175
- Guide for a typewriter
[NASA-CASE-MFS-15218-1] c37 N77-19457
- ERROR DETECTION CODES**
Self testing and repairing computer comprising control and diagnostic unit and rollback points for error correction
[NASA-CASE-MPO-10567] c08 N71-24633
- ERROR SIGNALS**
Error correction circuitry for binary signal channels
[NASA-CASE-MNP-03263] c09 N71-18843
- Feedback controller for sampling error signals within single control formulation time interval
[NASA-CASE-GSC-10554-1] c08 N71-29033
- Bit error rate measurement above and below bit rate tracking threshold
[NASA-CASE-MSC-12743-1] c32 N79-10263
- ERRORS**
Analog to digital converter using offset voltage to eliminate errors
- [NASA-CASE-MSC-13110-1] c08 N72-22163
- ESCAPE CAPSULES**
Aerial capsule emergency separation device using jettisonable towers
[NASA-CASE-XLA-00115] c03 N70-33343
- Emergency escape cabin system for launch towers
[NASA-CASE-XKS-02342] c05 N71-11199
- Spacecraft design with single point aerodynamic and hydrodynamic stability for emergency transport of men from space station to splashdown
[NASA-CASE-MSC-13281] c31 N72-18859
- ESCAPE SYSTEMS**
Design and specifications of emergency escape system for spacecraft structures
[NASA-CASE-MSC-12086-1] c05 N71-12345
- Automatic braking device for rapidly transferring humans or materials from elevated location
[NASA-CASE-XKS-07814] c15 N71-27067
- ESCHERICHIA**
Method and automated apparatus for detecting coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588
- ESTERS**
Fluorinated esters of polycarboxylic acid and lubricating compositions for use at extreme temperature
[NASA-CASE-MFS-21040-1] c06 N73-30098
- ETCHING**
Reusable masking boot for chemical machining operations
[NASA-CASE-MNP-02092] c15 N70-42033
- Development of method for etching copper
[NASA-CASE-XGS-06306] c17 N71-16044
- Composition and process for improving definition of resin masks used in chemical etching
[NASA-CASE-XGS-04993] c14 N71-17574
- Etching aluminum alloys with aqueous solution containing sulfuric acid, hydrofluoric acid, and an alkali metal dischromate for adhesive bonding
[NASA-CASE-MNP-02303] c17 N71-23828
- Selective plating of etched circuits without removing previous plating
[NASA-CASE-XGS-03120] c15 N71-24047
- Nickel plating onto etched aluminum castings
[NASA-CASE-MNP-04148] c17 N71-24830
- Scanning nozzle plating system --- for etching or plating metals on substrates without masking
[NASA-CASE-MPO-11758-1] c31 N74-23065
- Method for applying photographic resists to otherwise incompatible substrates
[NASA-CASE-MSC-18107-1] c35 N79-19319
- ETHANE**
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ABC-11097-1] c23 N78-22154
- Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ABC-11097-2] c23 N78-22155
- ETHERS**
Method for producing alternating ether-siloxane copolymers with stable properties when exposed to elevated temperatures and UV radiation
[NASA-CASE-MNP-02584] c06 N71-20905
- Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins
[NASA-CASE-MPO-10768] c06 N71-27254
- Formation of polyurethane resins from hydroxy terminated perfluoro ethers
[NASA-CASE-MPO-10768-2] c06 N72-27144
- ETHYLENE OXIDE**
Using ethylene oxide in preparation of sterilized solid rocket propellants and encapsulating materials
[NASA-CASE-MNP-01749] c27 N70-41897
- Ethylene oxide sterilization and encapsulating process for sterile preservation of instruments and solid propellants
[NASA-CASE-MNP-09763] c14 N71-20461
- EUTECTIC ALLOYS**
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992
- Method of growing composites of the type exhibiting the Soret effect --- improved structure of eutectic alloy crystals
[NASA-CASE-MFS-22926-1] c24 N77-27187

EVACUATING (VACUUM)

SUBJECT INDEX

Directionally solidified eutectic gamma plus beta nickel-base superalloys
[NASA-CASE-LEW-12906-1] c26 N77-32279

Directionally solidified eutectic gamma-gamma nickel-base superalloys
[NASA-CASE-LEW-12905-1] c26 N78-18183

EVACUATING (VACUUM)

Filling honeycomb matrix with deaerated paste filler
[NASA-CASE-IMS-01108] c15 N69-24322

Sealing evacuation port and evacuating vacuum container such as space jackets
[NASA-CASE-IMP-03290] c15 N71-23256

Gas leak detection in evacuated systems using ultraviolet radiation probe
[NASA-CASE-ERC-10034] c15 N71-24896

Evacuated, displacement compression mold --- of tubular bodies from thermosetting plastics
[NASA-CASE-LAR-10782-2] c31 N75-13111

EVAPORATION

Evaporating crucible of tantalum-tungsten foil, nickel alumina bonding agent, and ceramic coating
[NASA-CASE-XLA-03105] c15 N69-27483

EVAPORATIVE COOLING

Tubular sublimatory evaporator heat sink
[NASA-CASE-ARC-10912-1] c34 N77-19353

EVAPORATORS

Splatter proof evaporant source design for use in vacuum deposition of solid thin films on substrates
[NASA-CASE-IMP-06065] c15 N71-20395

Means of vapor deposition using electric current and evaporator filament
[NASA-CASE-LAR-10541-1] c15 N72-32487

EXAMINATION

Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-NFS-23315-1] c76 N78-24950

EXCLUSION

Counter pumping debris excluder and separator --- gas turbine shaft seals
[NASA-CASE-LEW-11855-1] c07 N78-25090

EXHAUST GASES

Device for adding water to high velocity exhaust jets to reduce velocity, noise, and temperature
[NASA-CASE-IMP-01813] c28 N70-41582

Gas turbine exhaust nozzle --- for noise reduction
[NASA-CASE-LEW-11569-1] c07 N74-15453

Abating exhaust noises in jet engines
[NASA-CASE-ARC-10712-1] c07 N74-33218

Exhaust flow deflector --- for ducted gas flow
[NASA-CASE-LAR-11570-1] c34 N76-18364

Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089

Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122

EXHAUST NOZZLES

High thrust annular liquid propellant rocket engine and exhaust nozzle design
[NASA-CASE-XLE-00078] c28 N70-33284

Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374

Penshaped, supersonic exhaust nozzle design
[NASA-CASE-XLE-00057] c28 N70-38711

Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-IMP-00676] c15 N70-38996

Jet aircraft exhaust nozzle for noise reduction
[NASA-CASE-LAR-10951-1] c28 N73-19819

Two dimensional wedge/translating shroud nozzle
[NASA-CASE-LAR-11919-1] c07 N78-27121

Variable area exhaust nozzle
[NASA-CASE-LEW-12378-1] c07 N79-14097

EXOTHERMIC REACTIONS

Ambient cure polyimide foams --- thermal resistant foams
[NASA-CASE-ARC-11170-1] c27 N79-11215

EXPANDABLE STRUCTURES

Expanding and contracting connector strip for solar cell array of Nimbus satellite
[NASA-CASE-IGS-01395] c03 N69-21539

Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
[NASA-CASE-XLA-00138] c31 N70-37981

Foldable conduit capable of springing back as self erecting structural member

[NASA-CASE-XLE-00620] c32 N70-41579

Collapsible high gain antenna which can be automatically expanded to operating state
[NASA-CASE-KSC-10392] c07 N73-26117

Expandable space frames with high expansion to collapse ratio
[NASA-CASE-ERC-10365-1] c31 N73-32749

Means for accommodating large overstrain in lead wires --- by storing extra length of wire in stretchable loop
[NASA-CASE-LAR-10168-1] c33 N74-22865

EXPANSION

Apparatus for measuring polymer membrane expansion in electrochemical cells
[NASA-CASE-IGS-03865] c14 N69-21363

EXPERIMENTAL DESIGN

Efficient operation of improved hydrofoil design
[NASA-CASE-XLA-00229] c12 N70-33305

Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-IMP-03378] c03 N71-11051

Electrode attached to helmets for detecting low level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193

Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
[NASA-CASE-XLA-02898] c05 N71-20268

Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161

EXPIRED AIR

Metabolic rate meter and method
[NASA-CASE-MSC-12239-1] c52 N79-21750

EXPLOSIONS

Device for detection of combustion light preceding gaseous explosions
[NASA-CASE-LAR-10739-1] c14 N73-16484

EXPLOSIVE DEVICES

Stage separation using remote control release of joint with explosive insert
[NASA-CASE-XLA-02854] c15 N69-27490

Hermetically sealed explosive release mechanism for actuator device
[NASA-CASE-IGS-00824] c15 N71-16078

Development of non-magnetic indexing device for orienting magnetic flux sensing instrument in magnetic field without generation of detrimental magnetic fields
[NASA-CASE-IGS-02422] c15 N71-21529

Development of apparatus for detonating explosive devices in order to determine forces generated and detonation propagation rate
[NASA-CASE-LAR-10800-1] c33 N72-27959

Development and characteristics of squib actuated explosive disconnect for spacecraft release from launch vehicle
[NASA-CASE-NPO-11330] c33 N73-26958

A pressure limiting propellant actuating system
[NASA-CASE-MSC-18179-1] c20 N78-31162

EXPLOSIVE FORMING

Electric discharge apparatus for electrohydraulic explosive forming
[NASA-CASE-IMP-00375] c15 N70-34249

EXPLOSIVE WELDING

Totally confined explosive welding --- apparatus to reduce noise level and protect personnel during explosive bonding
[NASA-CASE-LAR-10941-1] c37 N74-21057

Method of making an explosively welded scarf joint
[NASA-CASE-LAR-11211-1] c37 N75-12326

Totally confined explosive welding
[NASA-CASE-LAR-10941-2] c37 N79-13364

EXPLOSIVES

Production of intermetallic compounds by effect of shock waves from explosions and compaction of powder
[NASA-CASE-NFS-20861-1] c18 N73-32437

Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425

Electroexplosive device
[NASA-CASE-NPO-13858-1] c28 N79-11231

EXPONENTIAL FUNCTIONS

Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176

EXPOSURE

Mechanical exposure interlock device for

SUBJECT INDEX

FAIL-SAFE SYSTEMS

- preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N73-32322
- Selective image area control of X-ray film exposure density
[NASA-CASE-NPO-13808-1] c35 N78-15461
- EXPULSION BLADDERS**
Expulsion bladder equipped storage tank structure
[NASA-CASE-INP-00612] c11 N70-38182
Rubber composition for expulsion bladders and diaphragms for use with hydrazine
[NASA-CASE-NPO-11433] c18 N71-31140
- EXTENSIONS**
Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
[NASA-CASE-INP-07587] c15 N71-18701
- EXTENSOMETERS**
Transducer frame for use with extensometer to continuously monitor specimen sample
[NASA-CASE-XLA-10322] c15 N72-17452
Conductive elastomeric extensometer
[NASA-CASE-NFS-21049-1] c52 N74-27864
Amplifying ribbon extensometer
[NASA-CASE-LAR-11825-1] c35 N77-22449
Laser extensometer
[NASA-CASE-NFS-19259-1] c36 N78-14380
- EXTRACTION**
Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
- EXTRAVEHICULAR ACTIVITY**
Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
Hand-held maneuvering unit for propulsion and attitude control of astronauts in zero or reduced gravity environment
[NASA-CASE-XMS-05304] c05 N71-12336
Internal and external serpentine devices for performing physical operations around orbital space stations
[NASA-CASE-INP-05344] c31 N71-16345
Releasable, pin-type fastener, easily operated during EVA
[NASA-CASE-ARC-10140-1] c15 N71-17653
Design and development of flexible tunnel for use by spacecrews in performing extravehicular activities
[NASA-CASE-MSC-12243-1] c05 N71-24728
Open loop life support subsystem using breathing bag as reservoir for EVA
[NASA-CASE-MSC-12411-1] c05 N72-20096
Intra- and extravehicular life support space suite for Apollo astronauts
[NASA-CASE-MSC-12609-1] c05 N73-32012
- EXTREMELY LOW RADIO FREQUENCIES**
VHF/UHF parasitic probe antenna for spacecraft communication
[NASA-CASE-KKS-09340] c07 N71-24614
- EXTRUDING**
Hydrostatic extrusion of refractory materials using simple press
[NASA-CASE-NPO-10811] c15 N71-34425
Extrusion can for extruding ceramics under heat and pressure
[NASA-CASE-NPO-10812] c15 N73-13464
Brazing alloy binder
[NASA-CASE-INP-05868] c26 N75-27125
- EYE (ANATOMY)**
Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-INP-03934] c09 N71-22985
Ultrasonic device for ophthalmic eye surgery with safe removal of macerated material
[NASA-CASE-LEW-11669-1] c05 N73-27062
Spectrally balanced chromatic landing approach lighting system
[NASA-CASE-ARC-10990-1] c04 N77-12031
Corneal seal device
[NASA-CASE-LEW-12258-1] c52 N77-28716
- EYE EXAMINATIONS**
Automated visual sensitivity tester for determining visual field sensitivity and blind spot size
[NASA-CASE-ARC-10329-1] c05 N73-26072
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759
- Visual examination apparatus
[NASA-CASE-RE-ARC-10329-2] c52 N76-30793
- EYEPieces**
Wide angle eyepiece with long eye-relief distance
[NASA-CASE-XMS-06056-1] c23 N71-24857
- F**
- FABRICATION**
Fabrication of pressure-telemetry transducers
[NASA-CASE-INP-09752] c14 N69-21541
Fabrication method for lightweight regeneratively cooled combustion chamber of channel construction
[NASA-CASE-XLE-00150] c28 N70-41818
Fabrication methods for matrices of solar cell submodules
[NASA-CASE-XNP-05821] c03 N71-11056
Capacitor fabrication by solidifying mixture of ferromagnetic metal particles, nonferromagnetic particles, and dielectric material
[NASA-CASE-LEW-10364-1] c09 N71-13522
Method and apparatus for fabricating solar cell panels
[NASA-CASE-INP-03413] c03 N71-26726
Fabrication of root cord restrained fabric sections from sheets of fabric
[NASA-CASE-MSC-12398] c05 N72-20098
Method of fabricating equal length insulated wire
[NASA-CASE-PRC-10038] c15 N72-20444
Development of thin film temperature sensor from TaO
[NASA-CASE-NPO-11775] c26 N72-28761
Fabrication of polycrystalline solar cells on low-cost substrates
[NASA-CASE-GSC-12022-1] c44 N76-28635
Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441
Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments
[NASA-CASE-MSC-14331-3] c27 N78-32262
Solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N79-17314
Method for fabricating solar cells having integrated collector grits
[NASA-CASE-LEW-12819-2] c44 N79-18444
An improved solar panel and method for fabricating the same
[NASA-CASE-NPO-14490-1] c44 N79-18445
Method and apparatus for fabricating improved solar cell modules
[NASA-CASE-NPO-14416-1] c44 N79-18446
- FABRICS**
Fabrication of root cord restrained fabric suit sections from sheets of fabric
[NASA-CASE-MSC-12398] c05 N72-20098
Amplifying ribbon extensometer
[NASA-CASE-LAR-11825-1] c35 N77-22449
Nozzle extraction process and handlemeter for measuring handle
[NASA-CASE-LAR-12147-1] c31 N79-11246
- FABRY-PEROT INTERFEROMETERS**
Fabry-Perot interferometer retrodirective reflector modulator for optical communication
[NASA-CASE-XGS-04480] c16 N69-27491
- FACSIMILE COMMUNICATION**
Restoration and improvement of demodulated facsimile video signals
[NASA-CASE-GSC-10185-1] c07 N72-12081
Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613
- FACTORIAL DESIGN**
Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194
Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195
- FAIL-SAFE SYSTEMS**
Fail-safe multiple transformer circuit configuration
[NASA-CASE-NPO-11078] c09 N72-25262
Latch mechanism
[NASA-CASE-MSC-12549-1] c37 N74-27903

FAILURE MODES

SUBJECT INDEX

Safety flywheel --- using flexible materials
energy storage
[NASA-CASE-BQN-10888-1] c44 N79-14527

FAILURE MODES
Method for reducing mass of ball bearings for
long life operation at high speed
[NASA-CASE-LEW-10856-1] c15 N72-22490
Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090

FAIRINGS
System for deploying and ejecting releasable
clawshell fairing sections from spinning
sounding rockets
[NASA-CASE-GSC-10590-1] c31 N73-14853

FALLING SPHERES
Device for determining acceleration of gravity
by interferometric measurement of travel of
falling body
[NASA-CASE-XHP-05844] c14 N71-17587

FAR INFRARED RADIATION
Collimator for analyzing spatial location of
near and distant sources of radiation
[NASA-CASE-HFS-20546-2] c14 N73-30389

FAR ULTRAVIOLET RADIATION
Transient heat transfer gage for measuring total
radiant intensity from far ultraviolet and
ionized high temperature gases
[NASA-CASE-XNP-09802] c33 N71-15641

FASTENERS
Force measuring instrument for structural
members, particularly fastening bolts or studs
[NASA-CASE-XHP-00456] c14 N70-34705
Lightweight life preserver without fastening
devices
[NASA-CASE-XMS-00864] c05 N70-36493
Nut and bolt fastener permitting all-directional
movement of skin sections with respect to
supporting structure
[NASA-CASE-XLA-01807] c15 N71-10799
Releasable, pin-type fastener, easily operated
during EVA
[NASA-CASE-ARC-10140-1] c15 N71-17653
Ultrasonic wrench for applying vibratory energy
to mechanical fasteners
[NASA-CASE-HFS-20586] c15 N71-17686
Design and development of electric connectors
for rigid and semirigid coaxial cables
[NASA-CASE-XNP-04732] c09 N71-20851
Design, development, and characteristics of
latching mechanism for operation in limited
access areas
[NASA-CASE-XMS-03745] c15 N71-21076
Design and development of module joint clamping
device for application to solar array
construction
[NASA-CASE-XNP-02341] c15 N71-21531
Threadless fastener apparatus comprising
receiving apertures for plurality of articles,
self-locked condition, and capable of using
nonmalleable materials in both ends
[NASA-CASE-IFR-05302] c15 N71-23254
Development of resilient fastener for attaching
skin of aerospace vehicles to permit movement
of skin relative to framework
[NASA-CASE-XLA-01027] c31 N71-24035
Pneumatic mechanism for releasing hook and loop
fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
Helmet latching and attaching ring
[NASA-CASE-XMS-04670] c54 N78-17678

FATIGUE (MATERIALS)
Servocontrol system for measuring local stresses
at geometric discontinuity in stressed material
[NASA-CASE-XLA-08530] c32 N71-25360
TV fatigue crack monitoring system
[NASA-CASE-LAR-11490-1] c39 N78-16387

FATIGUE LIFE
Fatigue resistant shear pin with hollow shaft
and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505
Improving load capacity and fatigue life of
rolling element systems in rockets and missiles
[NASA-CASE-XLE-02999] c15 N71-16052
Method for reducing mass of ball bearings for
long life operation at high speed
[NASA-CASE-LEW-10856-1] c15 N72-22490
Fatigue life of hybrid antifriction bearings at
ultrahigh speeds
[NASA-CASE-LEW-11152-1] c15 N73-32359

Machine for use in monitoring fatigue life for a
plurality of elastomeric specimens
[NASA-CASE-NPO-13731-1] c39 N78-10493

FATIGUE TESTING MACHINES
Cryostat for use with horizontal fatigue testing
machines at low temperatures
[NASA-CASE-XHP-10968] c14 N71-24234
Fatigue testing apparatus with light shield and
infrared reflector for high temperature
evaluation of loaded sheet samples
[NASA-CASE-XLA-01782] c14 N71-26136

FATIGUE TESTS
Fatigue testing device applying random discrete
load levels to test specimen and applicable to
aircraft structures
[NASA-CASE-XLA-02131] c32 N70-42003

FATS
Oil and fat absorbing polymers
[NASA-CASE-NPO-11609-2] c27 N77-31308

FECES
Fecal waste disposal container
[NASA-CASE-XMS-06761] c05 N69-23192

FEED SYSTEMS
Nonconductive tube as feed system for plasma
thruster
[NASA-CASE-XLE-02902] c25 N71-21694
Method and apparatus for pressurizing propellant
tanks used in propulsion motor feed system
[NASA-CASE-XNP-00650] c27 N71-28929
Pressurized tank for feeding liquid waste into
processing equipment
[NASA-CASE-LAR-10365-1] c05 N72-27102
Pressurized inert gas feed for lighting system
[NASA-CASE-KSC-10644] c09 N72-27227
Dual frequency feed systems for Cassegrainian
antennas
[NASA-CASE-NPO-13091-1] c09 N73-12214
Improved injector with porous plug for bubbles
of gas into feed lines of electrically
conductive liquid
[NASA-CASE-NPO-11377] c15 N73-27406
Liquid reactant feeder for arc assisted metal
reduction reactor
[NASA-CASE-NPO-14382-1] c25 N78-22186

FEEDBACK
RC networks with voltage amplifier, RC input
circuit, and positive feedback
[NASA-CASE-ARC-10020] c10 N72-17172
Multistage feedback shift register with states
decomposable into cycles of equal length
[NASA-CASE-NPO-11082] c08 N72-22167
Inverter oscillator with voltage feedback
[NASA-CASE-NPO-10760] c09 N72-25254
A pitch attitude stabilization system utilizing
engine pressure ratio feedback signals
[NASA-CASE-LAR-12562-1] c08 N79-20135

FEEDBACK AMPLIFIERS
Development of system with electrical properties
which vary with changes in temperature for use
with feedback loop in operational amplifier
circuit
[NASA-CASE-HSC-13276-1] c14 N71-27058
Phase locked demodulator with bandwidth
switching amplifier circuit
[NASA-CASE-XNP-01107] c10 N71-28859
Monostable multivibrator for producing output
pulse widths with positive feedback NOR gates
[NASA-CASE-HSC-13492-1] c10 N71-28860

FEEDBACK CIRCUITS
Low power drain transistor feedback circuit
[NASA-CASE-XGS-04999] c09 N69-24317
Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503
Frequency control network for current feedback
oscillators converting dc voltage to ac or
higher dc voltages
[NASA-CASE-GSC-10041-1] c10 N71-19418
Feedback integrating circuit with grounded
capacitor for signal processing
[NASA-CASE-XAC-10607] c10 N71-23669
Development of idler feedback system to reduce
electronic noise problem in two parametric
amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-25258
Linear shift register with feedback logic for
generating pseudonoise linear recurring binary
sequences
[NASA-CASE-NPO-11406] c08 N73-12175

SUBJECT INDEX

FILAMENTS

- Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339
- FEEDBACK CONTROL**
Describing continuous analog to digital converter with parallel digital output and nonlinear feedback
[NASA-CASE-IAC-04031] c08 N71-18594
Pulsed magnetic core memory element with blocking oscillator feedback for interrogation without loss of digital information
[NASA-CASE-XGS-03303] c08 N71-18595
Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-IKS-06167] c08 N71-24890
Feedback control for direct current motor to achieve constant speed under varying loads
[NASA-CASE-NFS-14610] c09 N71-28886
Feedback controller for sampling error signals within single control formulation time interval
[NASA-CASE-GSC-10554-1] c08 N71-29033
Closed loop servosystem for variable speed tape recorders onboard spacecraft
[NASA-CASE-NPO-10700] c07 N71-33613
Development of aerodynamic control system to control flutter over large range of oscillatory frequencies using stability augmentation techniques
[NASA-CASE-LAR-10682-1] c02 N73-26C04
Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation
[NASA-CASE-HQN-10792-1] c33 N74-11049
Diffused waveguiding capillary tube with distributed feedback for a gas laser
[NASA-CASE-NPO-13544-1] c36 N76-18428
The dc-to-dc converters employing staggered-phase power switches with two-loop control
[NASA-CASE-NPO-13512-1] c33 N77-10428
System and method for tracking a signal source --- employing feedback control
[NASA-CASE-HQN-10880-1] c17 N78-17140
Closed loop spray cooling apparatus --- for particle accelerator targets
[NASA-CASE-LEW-11981-1] c31 N78-17237
Wide power range microwave feedback controller
[NASA-CASE-GSC-12146-1] c33 N78-32340
Discriminator aided phase lock acquisition for suppressed carrier signals
[NASA-CASE-NPO-14311-1] c32 N79-14276
- FEEDBACK FREQUENCY MODULATION**
Method and apparatus for communicating through ionized layer of gases surrounding spacecraft during reentry into planetary atmospheres
[NASA-CASE-LIA-01127] c07 N70-41372
Characteristics of data-aided carrier tracking loop used for tracking carrier in angle modulated communications system
[NASA-CASE-NPO-11282] c10 N73-16205
Linear phase demodulator including a phase locked loop with auxiliary feedback loop
[NASA-CASE-GSC-12018-1] c33 N77-14334
- FEEDERS**
Automatic real-time pair-feeding system for animals
[NASA-CASE-ARC-10302-1] c51 N74-15778
- FEET (ANATOMY)**
Drop foot corrective device
[NASA-CASE-LAR-12259-1] c54 N78-18762
- FELTS**
Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles
[NASA-CASE-HSC-12619-2] c27 N79-12221
- FERRALES**
Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ABC-11007-1] c52 N77-14736
Urine collection device
[NASA-CASE-HSC-16433-1] c52 N78-27750
- FERRITES**
Magnetic recording head composed of ferrite core coated with thin film of aluminum-iron-silicon alloy
[NASA-CASE-GSC-10097-1] c08 N71-27210
Method for making conductors for ferrite memory arrays --- from pre-formed metal conductors
[NASA-CASE-LAR-10994-1] c24 N75-13032
Device for measuring the ferrite content in an austenitic stainless-steel weld
[NASA-CASE-NFS-22907-1] c26 N76-18257
- FERRONAGNETIC MATERIALS**
Magnetic heat pumping
[NASA-CASE-LEW-12508-1] c34 N78-17335
- FERRONAGNETISM**
High temperature ferromagnetic cobalt-base alloy for electrical power generating equipment
[NASA-CASE-XLE-03629] c17 N71-23248
- FIBER OPTICS**
Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
[NASA-CASE-XMP-02433] c14 N71-10616
Fiber distributed feedback laser
[NASA-CASE-NPO-13531-1] c36 N76-24553
Fiber optic multiplex optical transmission system
[NASA-CASE-KSC-11047-1] c74 N78-14889
Low intensity X-ray and gamma-ray imaging device --- fiber optics
[NASA-CASE-GSC-12263-1] c74 N79-20857
- FIBERS**
Process for fiberizing ceramic materials with high fusion temperatures and tensile strength
[NASA-CASE-XNP-00597] c18 N71-23088
Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N77-28470
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150
Method of manufacture of bonded fiber flywheel
[NASA-CASE-NFS-23674-1] c24 N78-27182
Fibrous refractory composite insulation
[NASA-CASE-ABC-11169-1] c24 N78-32189
Dual membrane hollow fiber fuel cell and method of operating same
[NASA-CASE-NPO-13732-1] c44 N79-10513
- FIELD EFFECT TRANSISTORS**
Frequency to analog converters with unipolar field effect transistor for determining potential charge by pulse duration of input signal
[NASA-CASE-XNP-07040] c08 N71-12500
Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
Circuitry for high input impedance video processor with high noise immunity
[NASA-CASE-NPO-10199] c09 N72-17156
Development and characteristics of data multiplexer circuit using field effect transistors arranged in tree switching configuration
[NASA-CASE-NPO-11333] c08 N72-22162
Single integrated circuit chip with field effect transistor
[NASA-CASE-GSC-10835-1] c09 N72-33205
Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential of field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329
Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331
Field effect transistor and method of construction thereof
[NASA-CASE-NFS-23312-1] c33 N78-27326
- FIELD EMISSION**
Electrode with multiple columnar conductors for limiting field emission current
[NASA-CASE-ERC-10015-2] c10 N72-27246
- FILAMENT WINDING**
Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
[NASA-CASE-XMP-02107] c15 N71-10809
Fabrication of filament wound propellant tank for cryogenic storage
[NASA-CASE-XLE-03803-2] c15 N71-17651
Twisted wire or tube superconductor for filament windings
[NASA-CASE-LEW-11015] c26 N73-32571
Method of making reinforced composite structure
[NASA-CASE-LEW-12619-1] c24 N77-19171
- FILAMENTS**
Refractory filament series circuitry for radiant heater
[NASA-CASE-XLE-00387] c33 N70-34812

FILLERS

SUBJECT INDEX

- Controlled diffusion reaction process for masking substrate of twisted multifilament superconductive ribbon
[NASA-CASE-LEW-11726-1] c26 N73-26752
- FILLERS**
Filling honeycomb matrix with deaerated paste filler
[NASA-CASE-XMS-01108] c15 N69-24322
Intumescent-ablator coatings using endothermic fillers
[NASA-CASE-ARC-11043-1] c24 N78-27180
- FILM COOLING**
Multislot film cooled pyrolytic graphite rocket nozzle
[NASA-CASE-XNP-04389] c28 N71-20942
- FILES**
Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-NPS-20095] c24 N72-11595
Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994
- FILTERS**
Development of filter system for control of outgas contamination in vacuum condition using absorbent beds of molecular sieve zeolite, silica gel, and charcoal
[NASA-CASE-NPS-14711] c15 N71-26185
Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773
Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608
- FINS**
Thrust and attitude control apparatus using jet nozzle in movable canard surface or fin configuration
[NASA-CASE-XLE-03583] c31 N71-17629
Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
- FIRE EXTINGUISHERS**
Penetrator nozzle
[NASA-CASE-KSC-11064-1] c34 N78-22328
- FIRE PREVENTION**
Hydrogen fire blink detector for high altitude rocket or ground installation
[NASA-CASE-NPS-15063] c14 N72-25412
Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019
Fire protection covering for small diameter missiles
[NASA-CASE-ARC-11104-1] c15 N78-13110
- FIREPROOFING**
Fireproof potassium silicate coating composition, insoluble in water after application
[NASA-CASE-GSC-10072] c18 N71-14014
Lightweight fire resistant plastic foam for thermal protection of reentry vehicles and aircraft structures
[NASA-CASE-ARC-10180-1] c28 N72-20767
Intumescent paint containing nitrile rubber for fire protection
[NASA-CASE-ARC-10196-1] c18 N73-13562
Para-benzoguinone dioxime and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ARC-10304-1] c18 N73-26572
Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices
[NASA-CASE-ARC-10180-1] c27 N74-12814
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213
- FIRES**
Device for generating and controlling combustion products for testing of fire detection system
[NASA-CASE-GSC-11095-1] c14 N72-10375
Device for detecting hydrogen fires onboard high altitude rockets
[NASA-CASE-NPS-13130] c10 N72-17173
- FIRING (IGNITING)**
Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing.
[NASA-CASE-IGS-01971] c15 N71-15922
- FISSIONABLE MATERIALS**
Nuclear gaseous reactor for heating working fluid to high temperatures
[NASA-CASE-XLE-00321] c22 N70-34572
- FITTINGS**
Design and development of quick release connector
[NASA-CASE-XLA-01141] c15 N71-13789
Development and characteristics of strainer for flared tube fitting
[NASA-CASE-XLA-05056] c15 N72-11389
- FIXED WINGS**
Design of supersonic aircraft with novel fixed, swept wing planform
[NASA-CASE-XLA-04451] c02 N71-12243
- FIXTURES**
Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918
Apparatus for positioning modular components on a vertical or overhead surface
[NASA-CASE-LAB-11465-1] c37 N76-21554
- FLAME PROBES**
Flame detector operable in presence of proton radiation
[NASA-CASE-NPS-21577-1] c19 N74-29410
- FLAME RETARDANTS**
Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213
Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-3] c27 N78-25217
Flame retardant formulations and products produced therefrom
[NASA-CASE-MSC-16307-1] c25 N78-27232
Structural wood panels with improved fire resistance --- using prepolymers and hexamethylenetetramine
[NASA-CASE-ARC-11174-1] c24 N78-28178
Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments
[NASA-CASE-MSC-14331-3] c27 N78-32262
- FLAME SPRAYING**
Flame or plasma spraying for molybdenum coating of carbon or graphite surfaces to prevent oxidative corrosion
[NASA-CASE-XLA-00302] c15 N71-16077
Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739
Method of making pressure tight seal for super alloy
[NASA-CASE-LAR-10170-1] c37 N74-11301
- FLAME TEMPERATURE**
Direct heating surface combustor
[NASA-CASE-LEW-11877-1] c34 N78-27357
- FLAMES**
Anodizing method for providing metal surfaces with temperature reducing coatings against flames
[NASA-CASE-XLE-00035] c33 N71-29151
Modulated hydrogen ion flame detector
[NASA-CASE-ARC-10322-1] c35 N76-18403
- FLAMMABILITY**
Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985
Development of apparatus for testing burning rate and flammability of materials
[NASA-CASE-XMS-09690] c33 N72-25913
- FLANGES**
Cassegrain antenna subreflector flange for suppressing ground noise and increasing antenna transmitting efficiency
[NASA-CASE-XNP-00683] c09 N70-35425
Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
Flanged major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562
- FLAPS (CONTROL SURFACES)**
Upper surface, external flow, jet-augmented flap configuration for high wing jet aircraft for noise reduction
[NASA-CASE-XLA-00087] c02 N70-33332

SUBJECT INDEX

FLIGHT SIMULATION

- Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XNP-00641] c31 N70-36410
- Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
- Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil
[NASA-CASE-ARC-10754-1] c07 N75-24736
- FLARED BODIES**
Development and characteristics of strainer for flared tube fitting
[NASA-CASE-XLA-05056] c15 N72-11389
- FLAT CONDUCTORS**
Method of making molded electric connector for use with flat conductor cables
[NASA-CASE-XNP-03498] c15 N71-15986
- Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-NFS-13687] c09 N71-28691
- Shielded flat conductor cable of ribbonlike wires laminates in thin flexible insulation
[NASA-CASE-NFS-13687-2] c09 N72-22198
- Separable flat cable connector with isolated electrical contacts
[NASA-CASE-NFS-20757] c09 N72-28225
- Method and apparatus for preparing multiconductor cable with flat conductors
[NASA-CASE-NFS-10946-1] c31 N79-21226
- Edge coating of flat wires
[NASA-CASE-XNP-05757-1] c31 N79-21227
- FLAT PLATES**
Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLP-02624] c12 N69-39988
- Exponential horn, copper plate, magnetic hammer, and anvil in apparatus for making diamonds
[NASA-CASE-NFS-20698] c15 N72-20446
- Heat transfer device
[NASA-CASE-NFS-22938-1] c34 N76-18374
- Flat-plate heat pipe
[NASA-CASE-GSC-11998-1] c34 N77-32413
- FLEXIBILITY**
Weatherproof helix antenna
[NASA-CASE-XKS-08485] c07 N71-19493
- Flexible bellows joint shielding sleeve for propellant transfer pipelines
[NASA-CASE-XNP-01855] c15 N71-28937
- Flexible joint for pressurizable garment
[NASA-CASE-HSC-11072] c54 N74-32546
- Nozzle extraction process and handmeter for measuring handle
[NASA-CASE-LAR-12147-1] c31 N79-11246
- Safety flywheel --- using flexible materials energy storage
[NASA-CASE-HQN-10888-1] c44 N79-14527
- FLEXIBLE BODIES**
Flexible backup bar for welding awkwardly shaped structures
[NASA-CASE-XNP-00722] c15 N70-40204
- Characteristics of hermetically sealed electric switch with flexible operating capability
[NASA-CASE-XNP-09808] c09 N71-12518
- Flexible composite membrane structure impervious to extremely reactive chemicals in rocket propellants
[NASA-CASE-XNP-08837] c18 N71-16210
- Development and characteristics of self supporting space vehicle
[NASA-CASE-XLA-00117] c31 N71-17680
- Design and development of flexible tunnel for use by spacecrews in performing extravehicular activities
[NASA-CASE-HSC-12243-1] c05 N71-24728
- Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169
- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
- Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
[NASA-CASE-LAR-10270-1] c32 N72-25877
- Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
- Internally supported flexible duct joint --- device for conducting fluids in high pressure systems
[NASA-CASE-NFS-19193-1] c37 N75-19686
- FLEXIBLE WINGS**
Aeroflexible wing structure with air scoop for inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
- Deployment system for flexible wing with rigid superstructure
[NASA-CASE-XLA-01220] c02 N70-41863
- Development and characteristics of control system for flexible wings
[NASA-CASE-XLA-06958] c02 N71-11038
- FLEXING**
Two degree inverted flexure from single block of material
[NASA-CASE-ARC-10345-1] c15 N73-12488
- FLIGHT**
Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
[NASA-CASE-XFR-02007] c12 N71-24692
- FLIGHT ALTITUDE**
Surface based altitude measuring system for accurately measuring altitude of airborne vehicle
[NASA-CASE-ERC-10412-1] c09 N73-12211
- Terminal guidance system --- for guiding aircraft into preselected altitude and/or heading at terminal point
[NASA-CASE-PEC-10049-1] c04 N74-13420
- Apparatus for measuring an aircraft's speed and height
[NASA-CASE-LAR-12275-1] c35 N79-18296
- FLIGHT CONTROL**
Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157
- Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XFR-04104] c03 N70-42073
- Development of aircraft control system with high performance electrically controlled and mechanically operated hydraulic valves for precise flight operation
[NASA-CASE-XAC-00048] c02 N71-29128
- Development of flight simulator system to show position of joystick displacement
[NASA-CASE-NFO-11497] c08 N73-25206
- Solid state controller three axes controller
[NASA-CASE-HSC-12394-1] c08 N74-10942
- 6-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
- Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930
- Servo valve
[NASA-CASE-LAR-11643-1] c37 N75-13268
- Deploy/release system --- model aircraft flight control
[NASA-CASE-LAR-11575-1] c02 N76-16014
- FLIGHT CREWS**
Survival couch for aircraft or spacecraft crews
[NASA-CASE-XLA-00118] c05 N70-33285
- FLIGHT INSTRUMENTS**
Crosswind landing gear position indicator
[NASA-CASE-LAR-11941-1] c06 N77-20098
- FLIGHT RECORDERS**
Event recorder with constant speed motor which rotates recording disk
[NASA-CASE-XLA-01832] c14 N71-21006
- FLIGHT SAFETY**
Aerial capsule emergency separation device using jettisonable towers
[NASA-CASE-XLA-00115] c03 N70-33343
- Development and characteristics of electronic signalling system and data processing equipment for warning systems to avoid midair collisions between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641
- FLIGHT SIMULATION**
Lunar landing flight research vehicle
[NASA-CASE-XFR-00929] c31 N70-34966

FLIGHT SIMULATORS

SUBJECT INDEX

- Television simulation for aircraft and space flight
[NASA-CASE-IFR-03107] c09 N71-19449
- Electrical circuit selection device for simulating stage separation of flight vehicle
[NASA-CASE-XKS-04631] c10 N71-23663
- ## FLIGHT SIMULATORS
- Centrifuge mounted motion simulator with elevator mechanism
[NASA-CASE-IAC-00399] c11 N70-34815
- Table structure and rotating magnet system simulating gravitational forces on spacecraft and displaying trajectories between Earth, Venus, and Mercury
[NASA-CASE-XNP-00708] c14 N70-35394
- Wind tunnel test section for simulating high Reynolds number over transonic speed range
[NASA-CASE-MFS-20509] c11 N72-17183
- Development of flight simulator system to show position of joystick displacement
[NASA-CASE-NPO-11497] c08 N73-25206
- Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
- Vehicle simulator binocular multiplanar visual display system
[NASA-CASE-ARC-10808-1] c09 N76-24280
- Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083
- A seat cushion to provide realistic acceleration cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-2] c54 N78-30821
- Chromatically corrected virtual image display --- lens design for flight simulators
[NASA-CASE-LAR-12251-1] c74 N79-14892
- ## FLIGHT TESTS
- Device for measuring drag forces in flight tests
[NASA-CASE-XLA-00113] c14 N70-33386
- ## FLIGHT VEHICLES
- Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
[NASA-CASE-XLA-01486] c01 N71-23497
- Electro-optical attitude sensing device for landing approach of flight vehicle
[NASA-CASE-XMS-01994-1] c14 N72-17326
- Design and development of active control system for air cushion vehicle to reduce or eliminate effects of excessive vertical vibratory acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
- ## FLIP-FLOPS
- Bistable multivibrator circuits operating at high speed and low power dissipation
[NASA-CASE-XGS-00823] c10 N71-15910
- Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772
- Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547
- Redundant operation of counter modules
[NASA-CASE-NPO-14162-1] c35 N78-22347
- ## FLOATING
- Floating baffle for tank drain
[NASA-CASE-KSC-10639] c15 N73-26472
- Modification of one man life raft
[NASA-CASE-LAR-10241-1] c54 N74-14845
- A floating nut retention system
[NASA-CASE-HSC-16938-1] c37 N78-32431
- ## FLOATS
- Magnetically centered liquid column float
[NASA-CASE-IAC-00030] c14 N70-34820
- ## FLotation
- Development and characteristics of rescue litter with inflatable flotation device for water rescue application
[NASA-CASE-XMS-04170] c05 N71-22748
- ## FLOW CHAMBERS
- Multi-chamber controllable heat pipe
[NASA-CASE-ARC-10199] c34 N78-17337
- ## FLOW DIRECTION INDICATORS
- Electric circuit for reversing direction of current flow
[NASA-CASE-XNP-00952] c10 N71-23271
- Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864
- ## FLOW DISTRIBUTION
- Multiple orifice fluid flow control valve to provide different flow patterns
[NASA-CASE-ERC-10208] c15 N70-10867
- Photographing surface flow patterns on wind tunnel test models
[NASA-CASE-XLA-01353] c14 N70-41366
- Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
[NASA-CASE-XNP-01779] c12 N71-20815
- Dual wavelength scanning Doppler velocimeter --- without perturbation of flow fields
[NASA-CASE-ARC-10637-1] c35 N75-16783
- Controlled separation combustor --- airflow distribution in gas turbine engines
[NASA-CASE-LEW-11593-1] c20 N76-14190
- ## FLOW MEASUREMENT
- Collapsible flow test device for obstructed passages
[NASA-CASE-XMS-04917] c14 N69-24257
- Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
[NASA-CASE-XLE-00724] c14 N70-34669
- Mass flow meter containing beta source for measuring nonpolar liquid flow
[NASA-CASE-MFS-20485] c14 N72-11365
- Instrument for measuring magnitude and direction of flow velocity in flow field
[NASA-CASE-LAR-10855-1] c14 N73-13415
- Flow measuring apparatus
[NASA-CASE-LEW-12078-1] c35 N75-30503
- Method for making a hot wire anemometer and product thereof
[NASA-CASE-ARC-10900-1] c35 N77-24454
- Fluid velocity measuring device
[NASA-CASE-LAR-11729-1] c34 N79-12359
- ## FLOW REGULATORS
- Antibacklash circuit for hydraulic drive system
[NASA-CASE-XNP-01020] c03 N71-12260
- Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608
- Fluid flow control valve for regulating fluids in molecular quantities
[NASA-CASE-XLE-00703] c15 N71-15967
- Control of gas flow from pressurized vessel by thermal expansion of metal plug
[NASA-CASE-NPO-10298] c12 N71-17661
- Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-XNP-09704] c12 N71-18615
- Describing device for changing flow rate of fluid in duct in response to change in temperature
[NASA-CASE-MFS-14259] c15 N71-19213
- Pneumatic servoamplifier for controlling flow regulation
[NASA-CASE-HSC-12121-1] c15 N71-27147
- Gas flow control device, including housing and input port
[NASA-CASE-NPO-11479] c15 N73-13462
- Pressure modulating valve
[NASA-CASE-HSC-14905-1] c37 N77-28487
- Automotive gas turbine fuel control
[NASA-CASE-LEW-12785-1] c37 N78-24545
- ## FLOW STABILITY
- Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
[NASA-CASE-XNP-06926] c28 N71-22983
- Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-MFS-21424-1] c34 N74-27730
- ## FLOW VELOCITY
- Continuous variation of propellant flow and thrust by application of liquid foam flow theory to injection orifice
[NASA-CASE-XLE-00177] c28 N70-40367
- Measuring density of single and two-phase cryogenic fluids in rocket fuel tanks
[NASA-CASE-XLE-00688] c14 N70-41330
- Device for adding water to high velocity exhaust jets to reduce velocity, noise, and temperature
[NASA-CASE-XNP-01813] c28 N70-41582
- Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features

SUBJECT INDEX

FLUID FLOW

- [NASA-CASE-IXF-02822] c14 N70-41994
Zeta potential flowmeter for measuring very slow to very high flows
- [NASA-CASE-IXP-06509] c14 N71-23226
Device for simultaneously determining density, velocity, and temperature of streaming gas
- [NASA-CASE-XLA-03375] c16 N71-24074
Doppler shifted laser beam as fluid velocity sensor
- [NASA-CASE-XAC-10770-1] c16 N71-24828
Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
- [NASA-CASE-FRC-10022] c12 N71-26546
Force balanced throttle valve for fuel control in rocket engines
- [NASA-CASE-NPO-10808] c15 N71-27432
Flow rate switch for detecting variations in fluid flow velocity through conduits of pressurized systems
- [NASA-CASE-NPO-10722] c09 N72-20199
Instrument for measuring magnitude and direction of flow velocity in flow field
- [NASA-CASE-LAR-10855-1] c14 N73-13415
Apparatus for establishing flow of a fluid mass having a known velocity
- [NASA-CASE-MPS-21424-1] c34 N74-27730
Wind tunnel flow generation section
- [NASA-CASE-ARC-10710-1] c09 N75-12969
Combined dual scatter, local oscillator laser Doppler velocimeter
- [NASA-CASE-ARC-10642-1] c36 N76-14447
System for measuring three fluctuating velocity components in a turbulently flowing fluid
- [NASA-CASE-ARC-10974-1] c34 N77-27345
Fluid velocity measuring device
- [NASA-CASE-LAR-11729-1] c34 N79-12359
- FLOW VISUALIZATION**
- Method and apparatus for measuring shock layer radiation distribution about high velocity objects
- [NASA-CASE-XAC-02970] c14 N69-39896
Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
- [NASA-CASE-IXF-01779] c12 N71-20815
- FLOWMETERS**
- Collapsible flow test device for obstructed passages
- [NASA-CASE-IXS-04917] c14 N69-24257
Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
- [NASA-CASE-XLE-00724] c14 N70-34669
Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
- [NASA-CASE-IXF-02822] c14 N70-41994
Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
- [NASA-CASE-MSC-12084-1] c12 N71-17569
Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow
- [NASA-CASE-MPS-20386] c21 N71-19212
Zeta potential flowmeter for measuring very slow to very high flows
- [NASA-CASE-IXP-06509] c14 N71-23226
Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
- [NASA-CASE-IXP-02007] c12 N71-24692
Doppler shifted laser beam as fluid velocity sensor
- [NASA-CASE-XAC-10770-1] c16 N71-24828
Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
- [NASA-CASE-FRC-10022] c12 N71-26546
Mass flow meter containing beta source for measuring nonpolar liquid flow
- [NASA-CASE-MPS-20485] c14 N72-11365
Respiratory analysis system to determine gas flow rate and frequency of respiration and expiration cycles in real time
- [NASA-CASE-MSC-13436-1] c05 N73-32015
Low power electromagnetic flowmeter system producing zero output signal for zero flow
- [NASA-CASE-ARC-10362-1] c14 N73-32326
- Electromagnetic flow rate meter --- for liquid metals
- [NASA-CASE-LEW-10981-1] c35 N74-21018
Leak detector
- [NASA-CASE-MPS-21761-1] c35 N75-15931
System for measuring three fluctuating velocity components in a turbulently flowing fluid
- [NASA-CASE-ARC-10974-1] c34 N77-27345
- FLUID AMPLIFIERS**
- Fluid jet amplifier with fluid from jet nozzle deflected by inlet pressure
- [NASA-CASE-XLB-03512] c12 N69-21466
Multiple vortex amplifier system as fluid valve
- [NASA-CASE-IXF-04709] c15 N71-15609
Shear modulated fluid amplifier of high pressure hydraulic vortex amplifier type
- [NASA-CASE-MPS-10412] c12 N71-17578
Development of vortex fluid amplifier for throttling rocket exhaust
- [NASA-CASE-LEW-10374-1] c28 N73-13773
Fluid pressure amplifier and system
- [NASA-CASE-LAR-10868-1] c33 N74-11050
Fluid thrust control system --- for liquid propellant rocket engines
- [NASA-CASE-IXF-05964-1] c20 N79-21124
- FLUID FILMS**
- Journal bearings --- for lubricant films
- [NASA-CASE-LEW-11076-1] c37 N74-21061
Fluid journal bearings
- [NASA-CASE-LEW-11076-4] c37 N76-15461
Fluid seal for rotating shafts
- [NASA-CASE-LEW-11676-1] c37 N76-22541
- FLUID FILTERS**
- Absorbent apparatus for separating gas from liquid-gas stream used in environmental control under zero gravity conditions
- [NASA-CASE-IXS-01492] c05 N70-41297
Compact high pressure filter for rocket fuel lines
- [NASA-CASE-IXF-00732] c28 N70-41447
Development of liquid separating system using capillary device connected to flexible bladder storage chamber
- [NASA-CASE-IXS-13052] c14 N71-20427
Fluid control apparatus and method
- [NASA-CASE-LAR-11110-1] c34 N75-26282
Filter regeneration systems --- a system for regenerating a system filter in a fluid flow line
- [NASA-CASE-MSC-14273-1] c34 N75-33342
Quick disconnect filter coupling
- [NASA-CASE-MPS-22323-1] c37 N76-14463
Rapid, quantitative determination of bacteria in water
- [NASA-CASE-GSC-12158-1] c51 N78-22585
Fluid sample collection and distribution system
- [NASA-CASE-MSC-16841-1] c51 N78-22590
- FLUID FLOW**
- Fluid jet amplifier with fluid from jet nozzle deflected by inlet pressure
- [NASA-CASE-XLB-03512] c12 N69-21466
Pneumatic system for cyclic control of fluid flow in pneumatic device
- [NASA-CASE-IXS-04843] c03 N69-21469
Multiple orifice fluid flow control valve to provide different flow patterns
- [NASA-CASE-FRC-10208] c15 N70-10867
Conical valve plug for use with reactive cryogenic fluids
- [NASA-CASE-XLB-00715] c15 N70-34859
Pressure regulating system with high pressure fluid source, adapted to maintain constant downstream pressure
- [NASA-CASE-IXP-00450] c15 N70-38603
Antiflutter check valve for use with high pressure fluid flow
- [NASA-CASE-IXP-01152] c15 N70-41811
Inductive liquid level detection system
- [NASA-CASE-XLB-01609] c14 N71-10500
Multiple vortex amplifier system as fluid valve
- [NASA-CASE-IXF-04709] c15 N71-15609
Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
- [NASA-CASE-MSC-12084-1] c12 N71-17569
Throttle valve for regulating fluid flow volume
- [NASA-CASE-IXP-09698] c15 N71-18580
Photometric flow meter with comparator reference means
- [NASA-CASE-XGS-01331] c14 N71-22996

FLUID INJECTION

SUBJECT INDEX

Combination pressure transducer-calibrator assembly for measuring fluid
[NASA-CASE-IMP-01660] c14 N71-23036

Valve assembly for controlling simultaneously more than one fluid flow, and having stable qualities under loads
[NASA-CASE-IMS-05890] c09 N71-23191

Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
[NASA-CASE-FRC-10022] c12 N71-26546

Control valve for switching main stream of fluid from one stable position to another by means of electrohydrodynamic forces
[NASA-CASE-NPO-10416] c12 N71-27332

Fluid control jet amplifiers
[NASA-CASE-ILE-09341] c12 N71-28741

Mass flow meter containing beta source for measuring nonpolar liquid flow
[NASA-CASE-NFS-20485] c14 N72-11365

Flow rate switch for detecting variations in fluid flow velocity through conduits of pressurized systems
[NASA-CASE-NPO-10722] c09 N72-20199

Torsional disconnect device for releasably coupling distal ends of fluid conduits
[NASA-CASE-NPO-10704] c15 N72-20445

Capacitive tank gaging device for monitoring one constituent of two phase fluid by sensing dielectric constant
[NASA-CASE-NFS-21629] c14 N72-22442

Transferring liquid nitrogen through vacuum chamber to cryopanel
[NASA-CASE-LAR-10031] c15 N72-22484

Design and development of device to prevent geysering during convective circulation of cryogenic fluids
[NASA-CASE-KSC-10615] c15 N73-12486

Design and development of thermomechanical pump for transmitting warming fluid through fluid circuit to control temperature of spacecraft instrumentation
[NASA-CASE-NPO-11417] c15 N73-24513

Flow control valve --- for high temperature fluids
[NASA-CASE-NPO-11951-1] c37 N74-21065

Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-NFS-21424-1] c34 N74-27730

Internally supported flexible duct joint --- device for conducting fluids in high pressure systems
[NASA-CASE-NFS-19193-1] c37 N75-19686

Flow measuring apparatus
[NASA-CASE-LEW-12078-1] c35 N75-30503

Filter regeneration systems --- a system for regenerating a system filter in a fluid flow line
[NASA-CASE-MSC-14273-1] c34 N75-33342

Combined dual scatter, local oscillator laser Doppler velocimeter
[NASA-CASE-ARC-10642-1] c36 N76-14447

Externally supported internally stabilized flexible duct joint
[NASA-CASE-NFS-19194-1] c37 N76-14460

Vortex generator for controlling the dispersion of effluents in a flowing liquid
[NASA-CASE-LAR-12045-1] c34 N77-24423

Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction
[NASA-CASE-ARC-10970-1] c36 N77-25501

Accumulator
[NASA-CASE-NFS-19287-1] c34 N77-30399

Apparatus for measuring a sorbate dispersed in a fluid stream
[NASA-CASE-ARC-10896-1] c35 N78-19465

Flow compensating pressure regulator
[NASA-CASE-LEW-12718-1] c34 N78-25351

Fluid valve assembly
[NASA-CASE-MSC-12731-1] c37 N78-25426

Positive isolation disconnect
[NASA-CASE-MSC-16043-1] c37 N79-11402

Fluid velocity measuring device
[NASA-CASE-LAR-11729-1] c34 N79-12359

Self-stabilizing radial face seal
[NASA-CASE-LEW-12991-1] c37 N79-12445

FLUID INJECTION
Solid propellant ignition with hypergolic fluid injected to predetermined portions of propellant

[NASA-CASE-ILE-00207] c28 N70-33375

Method for igniting solid propellant rocket motors by injecting hypergolic fluids
[NASA-CASE-ILE-01988] c27 N71-15634

Constructing fluid spike nozzle to eliminate heat transfer and high temperature problems inherent in physical spikes
[NASA-CASE-IGS-01143] c31 N71-15647

Method and apparatus for producing fine particles in cryogenic liquid bath for gelled rocket propellants
[NASA-CASE-NPO-10250] c23 N71-16212

Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention
[NASA-CASE-IMS-01905] c12 N71-21089

Tertiary flow injection system for thrust vectoring of propulsive nozzle flow
[NASA-CASE-NFS-20831] c28 N71-29153

Programmable physiological infusion
[NASA-CASE-ARC-10447-1] c52 N74-22771

FLUID JETS
Directed fluid stream for propeller blade loading control
[NASA-CASE-XAC-00139] c02 N70-34856

FLUID LOGIC
Logic AND gate for fluid circuits
[NASA-CASE-XLA-07391] c12 N71-17579

FLUID MECHANICS
Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573

Development and characteristics of parallel plate viscometer for determination of absolute viscosity of liquids and viscoelastic materials
[NASA-CASE-NPO-11387] c14 N73-14429

FLUID POWER
Fluid power transmission and gas bearing system
[NASA-CASE-IMS-01445] c12 N71-16031

Low friction gas bearing system for fluid power transmission to bearing-supported payload
[NASA-CASE-ERC-10097] c15 N71-28465

FLUID PRESSURE
Flow compensating pressure regulator
[NASA-CASE-LEW-12718-1] c34 N78-25351

Self-stabilizing radial face seal
[NASA-CASE-LEW-12991-1] c37 N79-12445

FLUID ROTOR GYROSCOPES
Piezoelectric pump for supplying fluid at high frequencies to gyroscope fluid suspension system
[NASA-CASE-IMP-05429] c26 N71-21824

FLUID SWITCHING ELEMENTS
Two phase fluid pressurization system for propellant tank
[NASA-CASE-MSC-12390] c27 N71-29155

FLUID TRANSMISSION LINES
Low heat leak connector for cryogenic system
[NASA-CASE-ILE-02367-1] c31 N79-21225

FLUIDIC CIRCUITS
Using molds for fabricating individual fluid circuit components
[NASA-CASE-XLA-07829] c15 N72-16329

Flow measuring apparatus
[NASA-CASE-LEW-12078-1] c35 N75-30503

FLUIDICS
Fluidic-thermochromic display device
[NASA-CASE-ERC-10031] c12 N71-18603

Plasma-fluidic hybrid display system combining high brightness and memory characteristics
[NASA-CASE-ERC-10100] c09 N71-33519

Continuous gas flow control by fluidic proportional thruster system
[NASA-CASE-ARC-10106-1] c28 N72-22769

Fluid pressure amplifier and system
[NASA-CASE-LAR-10868-1] c33 N74-11050

Fluid valve assembly
[NASA-CASE-MSC-12731-1] c37 N78-25426

FLUIDIZED BED PROCESSORS
Fluidized bed coal combustion reactor
[NASA-CASE-NPO-14273-1] c37 N79-14388

FLUIDS
Automated fluid chemical analyzer for microchemical analysis of small quantities of liquids by use of selected reagents and analyzer units
[NASA-CASE-IMP-09451] c06 N71-26754

Detection of bacteria in biological fluids and foods

- [NASA-CASE-GSC-11533-1] c14 N73-13435
Fluid polydimethylsiloxane resin with low outgassing properties in cured state
[NASA-CASE-GSC-11358-1] c06 N73-26100
Fluid mass sensor for a zero gravity environment
[NASA-CASE-MSC-14653-1] c35 N77-19385
- FLUORESCENCE**
Spectrophotofluorometer with 3-dimensional display to identify fluorescence spectra of carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-IGS-01231] c14 N70-41676
Sealed fluorescent tube light unit capable of connection with other units to form string of work lights
[NASA-CASE-XKS-05932] c09 N71-26787
Chromato-fluorographic drug detector --- device for detecting and recording fluorescent properties of materials
[NASA-CASE-ARC-10633-1] c25 N74-26947
Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585
- FLUORIDES**
Self lubricating fluoride-metal composite materials for outer space applications
[NASA-CASE-XLE-08511] c18 N71-23710
Development of fluoride coating to prevent oxidation of beryllium surfaces at elevated temperatures
[NASA-CASE-LEW-10327] c17 N71-33408
Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
- FLUORINATION**
Fluorinated polyurethanes produced by reacting hydroxy terminated perfluoro polyether with diisocyanate
[NASA-CASE-NPO-10767-2] c06 N72-27151
Fluorinated esters of polycarboxylic acid and lubricating compositions for use at extreme temperature
[NASA-CASE-MFS-21040-1] c06 N73-30098
- FLUORINE**
Reaction of polyperfluoropolyenes with fluorine to produce saturated polymer chain or create reactive sites on chain
[NASA-CASE-NPO-10862] c06 N72-22107
- FLUORINE COMPOUNDS**
Fluorine-containing polyformals
[NASA-CASE-XMF-06900-1] c27 N79-21191
- FLUORO COMPOUNDS**
Synthesis of polyfluorobutadiene by polymerization of perfluorobutadiene with diisopropyl peroxydicarbonate
[NASA-CASE-NPO-10863] c06 N70-11251
Low pressure perfluorobutadiene polymerization with peroxide catalysts
[NASA-CASE-NPO-10847] c06 N70-11252
Preparation of fluorohydroxy ethers by reacting fluoroalkylene oxides with alkali salt of polyfluoroalkylene diol
[NASA-CASE-MFS-10507] c06 N73-30101
Preparation of fluorinated polyethers from 2-hydro-perhaloisopropyl alcohols
[NASA-CASE-MFS-11492] c06 N73-30102
Chemical and elastic properties of fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076
Utilization of oxygen difluoride for syntheses of fluoropolymers
[NASA-CASE-NPO-12061-1] c27 N76-16228
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-1] c23 N78-22154
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-2] c23 N78-22155
- FLUOROCARBONS**
Electrically conductive fluorocarbon polymers
[NASA-CASE-XLE-06774-2] c06 N72-25150
- FLUTTER**
Antiflutter check valve for use with high pressure fluid flow
[NASA-CASE-XNP-01152] c15 N70-41811
Development of aerodynamic control system to control flutter over large range of oscillatory frequencies using stability augmentation techniques
[NASA-CASE-LAR-10682-1] c02 N73-26004
- FLUX (RATE)**
Solid state device for mapping flux and power in nuclear reactor cores
- [NASA-CASE-XLE-00301] c14 N70-36808
Fluxgate magnetometer for measuring magnetic field along two axes using one sensor
[NASA-CASE-GSC-10441-1] c14 N71-27325
- FLUX DENSITY**
Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
- FLUXES**
Hydrazine monoperoxifluoro alkanoate solder flux leaving corrosion resistant coating, for metals such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688
Metal soldering with hydrazine monoperoxifluoro alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078
- FLYWHEELS**
Energy storage apparatus
[NASA-CASE-GSC-12030-1] c44 N78-24608
Method of manufacture of bonded fiber flywheel
[NASA-CASE-MFS-23674-1] c24 N78-27182
Rotatable mass for a flywheel
[NASA-CASE-MFS-23051-1] c37 N79-10422
Safety flywheel --- using flexible materials energy storage
[NASA-CASE-HQN-10888-1] c44 N79-14527
- FOAMS**
Plastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778
Continuous variation of propellant flow and thrust by application of liquid foam flow theory to injection orifice
[NASA-CASE-XLE-00177] c28 N70-40367
Development of foam insulation for filament wound cryogenic storage tank
[NASA-CASE-XLE-03803] c15 N71-23816
Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
Storage stable, thermally activated foaming compositions for erecting and rigidizing mechanisms of thin sheet solar collectors
[NASA-CASE-LAR-10373-1] c18 N71-26155
Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
Foam insulation thickness measuring and injection device for spacecraft applications
[NASA-CASE-MFS-20261] c14 N71-27005
Description of method for making homogeneous foamed materials in weightless environment using materials having different physical properties
[NASA-CASE-XNF-09902] c15 N72-11387
Polyimide foam for the thermal insulation and fire protection
[NASA-CASE-ARC-10464-1] c27 N74-12812
Intumescent composition, foamed product prepared therewith and process for making same
[NASA-CASE-ARC-10304-2] c27 N74-27037
Ceramic fiber insulating material and methods of producing same --- product development of foams for thermal insulation
[NASA-CASE-MSC-14795-1] c27 N76-15314
Ceramic fiber insulating material and method of producing same --- aircraft construction materials
[NASA-CASE-MSC-14795-2] c24 N78-25138
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N78-31232
Ambient cure polyimide foams --- thermal resistant foams
[NASA-CASE-ARC-11170-1] c27 N79-11215
- FOCUSING**
X ray collimating structure for focusing radiation directly onto detector
[NASA-CASE-XHQ-04106] c14 N70-40240
Apertured electrode focusing system for ion sources with nonuniform plasma density
[NASA-CASE-XNP-03332] c09 N71-10618
Development and characteristics of Petzval type objective including field shaping lens for focusing light of specified wavelength band on

curved photoreceptor
[NASA-CASE-GSC-10700] c23 N71-30027
Absolute focus locking device for microscopes to maintain set focus for extended time period
[NASA-CASE-LAR-10184] c14 N72-22445
Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube
[NASA-CASE-LEW-11617-1] c33 N74-10195
Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014
Multiplate focusing collimator --- for scanning small near radiation sources
[NASA-CASE-NFS-20932-1] c35 N75-15616
RF beam center location method and apparatus for power transmission system
[NASA-CASE-NPO-13821-1] c44 N78-28594

FOG

Anti-fog composition --- for prevention of fogging on surfaces such as space helmet visors and windshields
[NASA-CASE-WSC-13530-2] c23 N75-14834

FOILS (MATERIALS)

Foil seal between parts moving relative to each other
[NASA-CASE-XLE-05130] c15 N69-21362
Method of making an insulation foil
[NASA-CASE-LEW-11484-1] c24 N75-33181
Partial interlaminar separation system for composites
[NASA-CASE-LAR-12065-1] c24 N78-22162

FOLDING

Characteristics of device for folding thin flexible sheets into compact configuration
[NASA-CASE-XLA-00137] c15 N70-33180

FOLDING STRUCTURES

Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924
Collapsible, space erectable loop antenna system for space vehicle
[NASA-CASE-XMF-00437] c07 N70-40202
Unfolding boom assembly with knuckle joints for positioning equipment for spacecraft
[NASA-CASE-XGS-00938] c32 N70-41367
Foldable conduit capable of springing back as self erecting structural member
[NASA-CASE-XLE-00620] c32 N70-41579
Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580
Method for deployment of flexible wing glider from space vehicle with minimum impact and loading
[NASA-CASE-XMS-00907] c02 N70-41630
Development and characteristics of variable sweep wing control system for supersonic aircraft
[NASA-CASE-XLA-03659] c02 N71-11041
Hydraulic actuator design for space deployment of heat radiators
[NASA-CASE-MSC-11817-1] c15 N71-26611
Apparatus and method of assembling building blocks by folding pre-cut flat sheets of material during on-site construction
[NASA-CASE-MSC-12233-1] c15 N72-25454
Folding structure fabricated of rigid panels
[NASA-CASE-XHQ-02146] c18 N75-27040
Variable dibedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132

FOOD

Detection of bacteria in biological fluids and foods
[NASA-CASE-GSC-11533-1] c14 N73-13435

FORCE

Electromechanical actuator for producing mechanical force and/or motion in response to electrical signals
[NASA-CASE-NPO-11738-1] c09 N73-30185

FORCE DISTRIBUTION

Device for handling heavy loads by distributing forces
[NASA-CASE-INP-04969] c11 N69-27466
Development of two force component measuring device
[NASA-CASE-XAC-04886-1] c14 N71-20439
Tensile strength testing device having pulley guides for exerting multiple forces on test

specimen
[NASA-CASE-INP-05634] c15 N71-24834
Development and characteristics of device for indicating and recording magnitude of force applied in axial direction
[NASA-CASE-MSC-15626-1] c14 N72-25411
Variable direction force coupler for transmitting force along selectable curve path
[NASA-CASE-NFS-20317] c15 N73-13463
Subminiature insertable force transducer --- including a strain gage to measure forces in muscles
[NASA-CASE-NPO-13423-1] c33 N75-31329
Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N79-17813

FOREBODIES

Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N79-17813

FORMAT

Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N79-20751

FORMATES

Preparation of polyurethane polymer by reacting hydroxy polyformal with organic diisocyanate
[NASA-CASE-NFS-10509] c06 N73-30103

FORMING TECHNIQUES

Apparatus for forming wire grids for electric strain gages
[NASA-CASE-XLE-00023] c15 N70-33330
Hot forming of plastic sheets
[NASA-CASE-XMS-05516] c15 N71-17803
Forming tubes from long thin flat metal strips
[NASA-CASE-XGS-04175] c15 N71-18579
Portable magnetomotive hammer for metal working
[NASA-CASE-XMF-03793] c15 N71-24833
Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836
Heat treatment and tooling for forming shapes from thermosetting honeycomb core sheets
[NASA-CASE-NPO-11036] c15 N72-24522
Method of heat treating a formed powder product material
[NASA-CASE-LEW-10805-3] c26 N74-10521
Holding apparatus --- for thermosetting plastic compositions
[NASA-CASE-LAR-10489-2] c31 N74-32920
Process for making sheets with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c37 N75-26371
Drilled ball bearing with a one piece anti-tipping cage assembly
[NASA-CASE-LEW-11925-1] c37 N75-31446
Apparatus for forming dished ion thruster grids
[NASA-CASE-LEW-11694-2] c37 N76-14461
Acoustic energy shaping
[NASA-CASE-NPO-13802-1] c71 N78-10837
Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436
Method of producing complex aluminum alloy parts of high temper, and products thereof
[NASA-CASE-MSC-19693-1] c26 N78-24333
An improved solar cell and method of forming the same
[NASA-CASE-NPO-14205-1] c44 N78-27541

FORWARD SCATTERING

Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434

FOUNDATIONS

Base support for expansible and contractible coupling between two members
[NASA-CASE-NPO-11059] c15 N72-17454
Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383

FOURIER TRANSFORMATION

Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-MSC-12448-1] c14 N72-20394
Continuous Fourier transform method and apparatus --- for the analysis of simultaneous analog signal components
[NASA-CASE-ARC-10466-1] c60 N75-13539

FRACTIONATION

Purification apparatus for vaporization and fractional distillation of liquids
[NASA-CASE-INP-08124] c15 N71-27184

SUBJECT INDEX

FREQUENCY MEASUREMENT

FRACTURE MECHANICS

Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere
[NASA-CASE-ILE-01300] c15 N70-41993

FRACTURE STRENGTH

High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-1] c26 N77-24254

FRAMES

Shock absorbing articulated multiple couch assembly
[NASA-CASE-HSC-11253] c05 N71-12343
Pliable frame for sunglasses in emergency survival kits
[NASA-CASE-XMS-06064] c05 N71-23096
Expandable space frames with high expansion to collapse ratio
[NASA-CASE-ERC-10365-1] c31 N73-32749

FRAMING CAMERAS

High speed photo-optical time recorder for indicating time at exposure of each frame of high speed movie camera film
[NASA-CASE-KSC-10294] c14 N72-18411

FREE FLIGHT TEST APPARATUS

Hydraulic support equipment for full scale dynamic testing of large rocket vehicle under free flight conditions
[NASA-CASE-XNP-01772] c11 N70-41677
Hydraulic support apparatus for dynamic testing of space vehicles under near-free flight conditions
[NASA-CASE-XNP-03248] c11 N71-10604
Free flight suspension system for use with aircraft models in wind tunnel tests
[NASA-CASE-XLA-00939] c11 N71-15926

FREE WING AIRCRAFT

Free wing assembly for an aircraft
[NASA-CASE-FRC-10092-1] c05 N79-12061

FREEZE DRYING

Rice preparation process consisting of cooking, two freezing-thawing cycles, and then freeze drying
[NASA-CASE-HSC-13540-1] c05 N72-33096

FREEZING

System for and method of freezing biological tissue
[NASA-CASE-GSC-12173-1] c51 N79-10694

FREON

Solar energy power system --- using Freon
[NASA-CASE-NFS-21628-1] c44 N75-32581

FREQUENCIES

Controlled oscillator system with a time dependent output frequency
[NASA-CASE-NPO-11962-1] c33 N74-10194
High efficiency multifrequency feed
[NASA-CASE-GSC-11909] c32 N74-20863
Filtering technique based on high-frequency plant modeling for high-gain control
[NASA-CASE-LAR-12215-1] c08 N78-17070

FREQUENCY ANALYZERS

Describing frequency discriminator using digital logic circuits and supplying single binary output signal
[NASA-CASE-NFS-14322] c08 N71-18692
Broadband frequency discriminator with resistive captive inductive networks
[NASA-CASE-NPO-10096] c07 N71-24583
Audio frequency analysis circuit for determining, displaying, and recording frequency of sweeping audio frequency signal
[NASA-CASE-NPO-11147] c14 N72-27408
Continuous Fourier transform method and apparatus --- for the analysis of simultaneous analog signal components
[NASA-CASE-ARC-10466-1] c60 N75-13539
Frequency discriminator and phase detector circuit
[NASA-CASE-NPO-11515-1] c33 N77-13315
Frequency translating phase conjugation circuit for active retrodirective antenna array
[NASA-CASE-NPO-14536-1] c32 N79-14277

FREQUENCY CONTROL

Automatic control of voltage supply to direct current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987
Variable frequency magnetic coupled multivibrator with temperature compensated frequency control circuit
[NASA-CASE-IGS-00458] c09 N70-38604

Variable frequency magnetic coupled

multivibrator with output signal of constant amplitude and waveform
[NASA-CASE-IGS-00131] c09 N70-38995
Development of automatic frequency discriminators and control for phase lock loop providing frequency preset capabilities
[NASA-CASE-XNP-08665] c10 N71-19467
Linear accelerator frequency control system
[NASA-CASE-IGS-05441] c10 N71-22962
Tuning arrangement for frequency control of magnetron-type electron discharge device
[NASA-CASE-XNP-09771] c09 N71-24841
Low loss dichroic plate
[NASA-CASE-NPO-13171-1] c32 N74-11000
Automatic frequency control for FM transmitter
[NASA-CASE-NFS-21540-1] c32 N74-19790
Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427
Reflex feed system for dual frequency antenna with frequency cutoff means
[NASA-CASE-NPO-14022-1] c32 N78-31321
Cam-operated pitch-change apparatus
[NASA-CASE-LEW-13050-1] c07 N79-14095

FREQUENCY CONVERTERS

Frequency to analog converters with unipolar field effect transistor for determining potential charge by pulse duration of input signal
[NASA-CASE-XNP-07040] c08 N71-12500
Describing static inverter with single or multiple phase output
[NASA-CASE-XNP-00663] c08 N71-18752
Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
Development of family of frequency to amplitude converters for frequency analysis of complex input signal waveforms
[NASA-CASE-HSC-12395] c09 N72-25257
Variable frequency inverter for ac induction motors with torque, speed and braking control
[NASA-CASE-NFS-22088-1] c33 N75-15874

FREQUENCY DISCRIMINATORS

PN lock indicator for dithered PN code tracking loop
[NASA-CASE-NPO-14435-1] c33 N79-18224

FREQUENCY DISTRIBUTION

Monopole antenna system for maximum omnidirectional efficiency for use on satellites
[NASA-CASE-XLA-00414] c07 N70-38200
Variable frequency subcarrier oscillator with temperature compensation
[NASA-CASE-XNP-03916] c09 N71-28810
Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323
A phase insensitive ultrasonic transducer --- annealing cadmium sulfide crystals
[NASA-CASE-LAR-12304-1] c71 N78-29871

FREQUENCY DIVIDERS

Low phase noise frequency divider for use with deep space network communication system
[NASA-CASE-NPO-11569] c10 N73-26229
Technique for extending the frequency range of digital dividers
[NASA-CASE-LAR-10730-1] c33 N74-10223
Symmetrical odd-modulus frequency divider
[NASA-CASE-NPO-13426-1] c33 N75-31330
Electronic analog divider
[NASA-CASE-LEW-11881-1] c33 N77-17354

FREQUENCY DIVISION MULTIPLEXING

Earth satellite relay station for frequency multiplexed voice transmission
[NASA-CASE-GSC-10118-1] c07 N71-24621
System for monitoring condition responsive devices by using frequency division multiplex technique
[NASA-CASE-KSC-10521] c07 N73-20176

FREQUENCY MEASUREMENT

Measurement system for physical quantity represented by or converted to variable frequency signal
[NASA-CASE-NFS-20658-1] c14 N73-30386
Frequency measurement by coincidence detection with standard frequency
[NASA-CASE-HSC-14649-1] c33 N76-16331
Time domain phase measuring apparatus
[NASA-CASE-GSC-12228-1] c33 N79-10338

FREQUENCY MODULATION

SUBJECT INDEX

FREQUENCY MODULATION

Accelerometer with FM output signals indicative of mechanical strain on it
[NASA-CASE-XLA-00492] c14 N70-34799

Circuitry for generating sync signals in FM communication systems including video information
[NASA-CASE-XNP-10830] c07 N71-11281

Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XNP-01160] c07 N71-11298

Optical tracker with pair of FM reticles having patterns 90 deg out of phase
[NASA-CASE-XGS-05715] c23 N71-16100

Atomic hydrogen maser with bulb temperature control by output frequency difference signal for wall shift elimination
[NASA-CASE-HQN-10654-1] c16 N73-13489

Device for locating electrically nonlinear objects and determining distance to object by FM signal transmission
[NASA-CASE-XSC-10108] c14 N73-25461

Automatic frequency control for FM transmitter
[NASA-CASE-NFS-21540-1] c32 N74-19790

Symmetrical odd-modulus frequency divider
[NASA-CASE-NPO-13426-1] c33 N75-31330

Frequency modulated oscillator
[NASA-CASE-NFS-23181-1] c33 N77-17351

FM/CW radar system
[NASA-CASE-NFS-22234-1] c32 N79-10264

Method and apparatus for quadriphase-shift-key and linear phase modulation
[NASA-CASE-NPO-14444-1] c32 N79-18155

FREQUENCY MULTIPLIERS
Multiple varactor for generating high frequencies with high power and high conversion efficiency
[NASA-CASE-XNP-04958-1] c10 N71-26414

Open loop digital frequency multiplier
[NASA-CASE-MSC-12709-1] c33 N77-24375

FREQUENCY RANGES
Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-XGS-01983] c10 N70-41964

Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-XNP-09830] c14 N71-26266

Technique for extending the frequency range of digital dividers
[NASA-CASE-LAB-10730-1] c33 N74-10223

Multichannel logarithmic RF level detector
[NASA-CASE-LAB-11021-1] c32 N76-14321

Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-1] c32 N79-19195

FREQUENCY RESPONSE
Adjustable frequency response microphone
[NASA-CASE-LAB-11170-1] c32 N74-12843

FREQUENCY SCANNING
Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

Automatic communication signal monitoring system
[NASA-CASE-NPO-13941-1] c32 N79-10262

Discriminator aided phase lock acquisition for suppressed carrier signals
[NASA-CASE-NPO-14311-1] c32 N79-14276

FREQUENCY SHIFT
Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
[NASA-CASE-XGS-02749] c07 N69-39978

Serrodyne traveling wave tube reentrant amplifier for synchronous communication satellites operating at microwave frequencies
[NASA-CASE-XGS-01022] c07 N71-16088

Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
[NASA-CASE-XNP-01306] c07 N71-20814

Doppler shifted laser beam as fluid velocity sensor
[NASA-CASE-XAC-10770-1] c16 N71-24828

Laser Doppler velocity simulator
[NASA-CASE-LAB-12176-1] c36 N78-29435

FREQUENCY SHIFT KEYING
Frequency shift keyed demodulator - circuit diagrams
[NASA-CASE-XGS-02889] c07 N71-11282

Frequency shift keying apparatus for use with pulse code modulation data transmission system
[NASA-CASE-XGS-01537] c07 N71-23405

FREQUENCY STABILITY
Gas laser frequency stabilized by position of mirrors in resonant cavity
[NASA-CASE-XGS-03644] c16 N71-18614

Solid state broadband stable power amplifier
[NASA-CASE-XNP-10854] c10 N71-26331

FREQUENCY STANDARDS
Development of method for synchronizing clocks at several ground stations based on signals received from spacecraft or satellites
[NASA-CASE-XNP-08875] c10 N71-23099

Atomic standard with variable storage volume
[NASA-CASE-GSC-11895-1] c35 N76-15436

Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323

External bulb variable volume maser
[NASA-CASE-GSC-12334-1] c36 N79-14362

FREQUENCY SYNCHRONIZATION
Synchronized digital communication system
[NASA-CASE-XNP-03623] c09 N73-28084

Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323

System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296

FREQUENCY SYNTHESIZERS
Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-XGS-02317] c09 N71-23525

System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296

FRICTION FACTOR
Self lubricating gears and other mechanical parts having surface adapted to frictional contact
[NASA-CASE-NFS-14971] c15 N71-24984

FRICTION MEASUREMENT
Kinetic and static friction force measurement between magnetic tape and magnetic-head surfaces
[NASA-CASE-XNP-08680] c14 N71-22995

Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489

FRICTION REDUCTION
Development of low friction magnetic recording tape
[NASA-CASE-XGS-00373] c23 N71-15978

Hollow high strength rolling elements for antifriction bearings fabricated from preformed components
[NASA-CASE-LBW-11026-1] c15 N73-33383

Bearing material
[NASA-CASE-LBW-11930-3] c24 N77-32249

FRICTIONLESS ENVIRONMENTS
Air bearings for near frictionless transfer of loads from one body to another
[NASA-CASE-XNP-01887] c15 N71-10617

Platform with several ground effect pads and plenum chambers
[NASA-CASE-NFS-14685] c31 N71-15689

Development of apparatus for simulating zero gravity conditions
[NASA-CASE-NFS-12750] c27 N71-16223

FROST
Insulating system for receptacles of liquefied gases using wire cloth for forming frost layer
[NASA-CASE-XNP-00341] c15 N70-33323

FUEL CELLS
Inorganic ion exchange membrane electrolytes for fuel cell use
[NASA-CASE-XNP-04264] c03 N69-21337

Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism
[NASA-CASE-XLB-01645] c03 N71-20904

Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
[NASA-CASE-XNS-01625] c15 N71-23022

SUBJECT INDEX

FURLABLE ANTENNAS

- Development and characteristics of ion-exchange membrane and electrode assembly for fuel cells or electrolysis cells
[NASA-CASE-XMS-02063] c03 N71-29044
- Reconstituted asbestos matrix --- for use in fuel or electrolysis cells
[NASA-CASE-MSC-12568-1] c24 N76-14204
- Dual membrane hollow fiber fuel cell and method of operating same
[NASA-CASE-NPO-13732-1] c44 N79-10513
- FUEL COMBUSTION**
- Fuel combustor
[NASA-CASE-LEW-12137-1] c25 N78-10224
- FUEL CONTROL**
- Attitude and propellant flow control system for liquid propellant rocket vehicles
[NASA-CASE-XMP-00185] c21 N70-34539
- Flexible ring slosh damping baffle for spacecraft fuel tank
[NASA-CASE-LAR-10317-1] c32 N71-16103
- Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106
- Control valve and coaxial variable injector for controlling bipropellant mixture ratio and flow
[NASA-CASE-XNP-09702] c15 N71-17654
- Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-NPO-10808] c15 N71-27432
- Variable-orifice hydraulic mechanism for aircraft gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N73-19793
- Automotive gas turbine fuel control
[NASA-CASE-LEW-12785-1] c37 N78-24545
- FUEL FLOW**
- Development of system for preheating vaporized fuel for use with internal combustion engines
[NASA-CASE-NPO-12072] c28 N72-22772
- FUEL FLOW REGULATORS**
- Solenoid two-step valve for bipropellant flow rate control to rocket engine
[NASA-CASE-XMS-04890-1] c15 N70-22192
- Water electrolysis rocket engine with self-regulating stoichiometric fuel mixing regulator
[NASA-CASE-XGS-08729] c28 N71-14044
- Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106
- FUEL GAGES**
- Response analyzing apparatus for liquid vapor interface/sensor of sloshing rocket propellant
[NASA-CASE-NPS-11204] c14 N71-29134
- FUEL INJECTION**
- Apparatus for cooling and injecting hypergolic propellants into combustion chamber of small rocket engine
[NASA-CASE-XLE-00303] c15 N70-36535
- Fuel injection system for maximum combustion efficiency of rocket engines
[NASA-CASE-XLE-00111] c28 N70-38199
- Propellant injection assembly having individually removable and replaceable nozzles for liquid fueled rocket engines
[NASA-CASE-XNP-00968] c28 N71-15660
- Fuel and oxidizer injection head for thrust chamber of reaction engine
[NASA-CASE-NPO-10046] c28 N72-17843
- Improved injector with porous plug for bubbles of gas into feed lines of electrically conductive liquid
[NASA-CASE-NPO-11377] c15 N73-27406
- Rocket propellant injector with porous faceplate for rocket engine combustion chamber
[NASA-CASE-LEW-11071-1] c27 N73-27695
- Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122
- FUEL OILS**
- Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106
- FUEL PUMPS**
- Variable displacement fuel pump for internal combustion engines
[NASA-CASE-MSC-12139-1] c28 N71-14058
- FUEL SYSTEMS**
- Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781
- Development of system for preheating vaporized fuel for use with internal combustion engines
[NASA-CASE-NPO-12072] c28 N72-22772
- Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502
- Fuel combustor
[NASA-CASE-LEW-12137-1] c25 N78-10224
- Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122
- Fuel delivery system including heat exchanger means
[NASA-CASE-LEW-12793-1] c37 N79-11403
- A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-NPS-23904-1] c20 N79-13077
- FUEL TANK PRESSURIZATION**
- Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
[NASA-CASE-XLE-00288] c25 N70-34247
- Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants
[NASA-CASE-XNP-04731] c15 N71-24042
- Method and apparatus for pressurizing propellant tanks used in propulsion motor feed system
[NASA-CASE-XNP-00650] c27 N71-28929
- FUEL TANKS**
- Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLE-02624] c12 N69-39988
- Flexible ring slosh damping baffle for spacecraft fuel tank
[NASA-CASE-LAR-10317-1] c32 N71-16103
- Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106
- Pressure sensor network for measuring liquid dynamic response in flight including fuel tank acceleration, liquid slosh amplitude, and fuel depth monitoring
[NASA-CASE-XLA-05541] c12 N71-26387
- Electrical failure detector in solid rocket propellant motor insulation against thermal degradation by fuel grain
[NASA-CASE-XNP-03968] c14 N71-27186
- FUEL VALVES**
- Apparatus for cooling and injecting hypergolic propellants into combustion chamber of small rocket engine
[NASA-CASE-XLE-00303] c15 N70-36535
- Semitoroidal diaphragm cavitating flow control valve
[NASA-CASE-XNP-09704] c12 N71-18615
- Filler valve design for supplying liquid propellants at high pressure to space vehicles
[NASA-CASE-XNP-01747] c15 N71-23024
- Combination automatic-starting electrical plasma torch and gas shutoff valve --- for satellite attitude control
[NASA-CASE-XLE-10717] c37 N75-29426
- FUEL-AIR RATIO**
- Internal combustion engine with electrostatic discharging fuels
[NASA-CASE-NPO-13798-1] c37 N77-25535
- FUNCTION GENERATORS**
- Mechanical function generators with potentiometer as sensing element
[NASA-CASE-XAC-00001] c15 N71-28952
- Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176
- Service life of electromechanical device for generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
- Function generators for producing complex vibration mode patterns used to identify vibration mode data
[NASA-CASE-LAR-10310-1] c10 N73-20253
- Integrated circuit tangent function generator
[NASA-CASE-MSC-13907-1] c10 N73-26230
- FURLABLE ANTENNAS**
- Development and characteristics of extensible dipole antenna using deformable tubular metallic strip element
[NASA-CASE-HQN-00937] c07 N71-28979
- Furlable antenna for spacecraft
[NASA-CASE-NPO-11361] c07 N72-32169
- Furlable antenna --- antenna design
[NASA-CASE-NPO-13553-1] c33 N76-32457

FURNACES

SUBJECT INDEX

FURNACES

High speed infrared furnace
[NASA-CASE-XLE-10466] c17 N69-25147
Development of black-body source calibration furnace
[NASA-CASE-XLE-01399] c33 N71-15625
Induction heating of metallurgical specimens to high temperatures in coil furnace
[NASA-CASE-XLE-04026] c14 N71-23267
Electric furnace for vacuum and zero gravity melting of high melting point materials during earth orbit
[NASA-CASE-MPS-20710] c11 N72-23215
High temperature strain gage calibration fixture
[NASA-CASE-LAR-11500-1] c35 N76-24523
General purpose rocket furnace
[NASA-CASE-MPS-23460-1] c09 N77-12070

FUSELAGES

Fuselage structure using advanced technology metal matrix fiber reinforced composites
[NASA-CASE-LAR-11688-1] c05 N78-18045

FUSION (MELTING)

Silver chloride use in technique for fusion bonding of graphite to silver, glass, ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735
Process for fiberizing ceramic materials with high fusion temperatures and tensile strength
[NASA-CASE-XNP-00597] c18 N71-23088

FUSION WELDING

Fabricating solar cells with dielectric layers to improve glass fusion
[NASA-CASE-XGS-04531] c03 N69-24267
Control of fusion welding through use of thermocouple wire
[NASA-CASE-MPS-06074] c15 N71-20393
Electrical resistance butt welder for welding fine gauge tungsten/rhenium thermocouple wire
[NASA-CASE-LAR-10103-1] c15 N73-14468
Diffusion welding in air --- solid state welding of butt joint by fusion welding, surface cleaning, and heating
[NASA-CASE-LEW-11387-1] c37 N74-18128

G

GADOLINIUM

Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607
Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells
[NASA-CASE-XLE-10715] c26 N71-23292

GALLIUM

Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790

GALLIUM ARSENIDES

Describing method for vapor deposition of gallium arsenide films to manganese substrates to provide semiconductor devices with low resistance substrates
[NASA-CASE-XNP-01328] c26 N71-18064
Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor
[NASA-CASE-XNP-01960] c09 N71-23027
Water content in vapor deposition atmosphere for forming n-type and p-type junctions of zinc doped gallium arsenide
[NASA-CASE-XNP-01961] c26 N71-29156
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043
Vapor deposition apparatus --- semiconductors and gallium arsenides
[NASA-CASE-HQN-10462] c25 N75-29192

GALLIUM COMPOUNDS

Growth of gallium nitride crystals
[NASA-CASE-LAR-11302-1] c25 N75-13054

GALVANIC SKIN RESPONSE

Adhesive spray process for attaching biomedical skin electrodes
[NASA-CASE-XPR-07658-1] c05 N71-26293

GAMMA RAYS

Design of gamma ray spectrometer for measurement

of intense radiation using Compton scattering effect
[NASA-CASE-MPS-21441-1] c14 N73-30392
Low intensity X-ray and gamma-ray imaging device --- fiber optics
[NASA-CASE-GSC-12263-1] c74 N79-20857

GANTRY CRANES

Design and characteristics of mechanically extended and telescoping boom on crane assembly
[NASA-CASE-NPO-11118] c03 N72-25021

GAPS

Electromagnetic transducer recording head having a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392

GARMENTS

Electromedical garment, applying vectorcardiologic type electrodes to human torsos for data recording during physical activity
[NASA-CASE-XPR-10856] c05 N71-11189
Flexible joint for pressurizable garment
[NASA-CASE-MSC-11072] c54 N74-32546
Spacesuit torso closure
[NASA-CASE-ARC-11100-1] c54 N78-31736

GAS ANALYSIS

Gas analyzer for bi-gaseous mixtures suitable for use in test facilities
[NASA-CASE-XLA-01131] c14 N71-10770
Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
Design and characteristics of time of flight mass spectrometer to measure or analyze gases at low pressures and time of flight of single gas molecule
[NASA-CASE-XNP-01056] c14 N71-23041
Microwave double resonance spectroscopy absorption cell for gas analysis
[NASA-CASE-LAR-10305] c14 N71-26137
Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids
[NASA-CASE-ERC-10014] c14 N71-28863
Development and characteristics of injection system for use with gas chromatograph
[NASA-CASE-ARC-10344-1] c14 N72-21433
Nondispersive gas analysis using radiation detection for quantitative analysis
[NASA-CASE-ARC-10308-1] c06 N72-31141
Apparatus for analyzing gas samples in containers including vacuum chamber, mass spectrometer, and gas chromatography
[NASA-CASE-GSC-10903-1] c14 N73-12444
Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949
Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857
NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502
Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656
Nulling device for detection of trace gases by NDIR absorption
[NASA-CASE-ARC-10760-1] c25 N76-22323
Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples
[NASA-CASE-MSC-14428-1] c23 N77-17161
Fluid sampling device
[NASA-CASE-GSC-12143-1] c35 N77-32456

GAS BAGS
Payload soft landing system using stowable gas bag
[NASA-CASE-XLA-09881] c31 N71-16085

GAS BEARINGS
Externally pressurized air bearing for gyros operating in high temperature, low gravity environments
[NASA-CASE-XNP-00515] c15 N70-34664
Slit regulated gas journal bearing
[NASA-CASE-XNP-00476] c15 N70-38620
Air bearings for spacecraft gyros
[NASA-CASE-XNP-00339] c15 N70-39896
Air bearings for near frictionless transfer of loads from one body to another
[NASA-CASE-XNP-01887] c15 N71-10617
Fluid power transmission and gas bearing system
[NASA-CASE-XNS-01445] c12 N71-16031

- Bismuth and lead surface coatings for gas bearings in aerospace engineering
[NASA-CASE-XGS-02011] c15 N71-20739
- Swivel support for gas bearing for position adjustment between ball and supporting cup
[NASA-CASE-XMF-07808] c15 N71-23812
- Low friction gas bearing system for fluid power transmission to bearing-supported payload
[NASA-CASE-ERC-10097] c15 N71-28465
- Gas bearing for model support with capacity for measuring angular displacement of model in bearing
[NASA-CASE-XLA-09346] c15 N71-28740
- Journal air bearing with cylindrical cup designed to ride on shaft
[NASA-CASE-MFS-20423] c15 N72-11388
- Air bearing for use in exterior environment for moving heavy loads
[NASA-CASE-WLP-10002] c15 N72-17451
- Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459
- Thrust bearing
[NASA-CASE-LEW-11949-1] c37 N76-29588
- Cantilever mounted resilient pad gas bearing
[NASA-CASE-LEW-12569-1] c37 N79-10418
- GAS CHROMATOGRAPHY**
- Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936
- Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
- Gas chromatographic method for determining water in nitrogen tetroxide rocket propellant
[NASA-CASE-NPO-10234] c06 N72-17094
- Development and characteristics of injection system for use with gas chromatograph
[NASA-CASE-ARC-10344-1] c14 N72-21433
- Gas chromatographic method for analyzing hydrogen deuterium mixtures
[NASA-CASE-NPO-11322] c06 N72-25146
- Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds
[NASA-CASE-HQN-10756-1] c14 N72-25428
- Apparatus for analyzing gas samples in containers including vacuum chamber, mass spectrometer, and gas chromatography
[NASA-CASE-GSC-10903-1] c14 N73-12444
- Gas chromatograph injection system
[NASA-CASE-ARC-10344-2] c35 N75-26334
- Chelate-modified polymers for atmospheric gas chromatography
[NASA-CASE-ARC-11154-1] c27 N78-27275
- GAS COMPOSITION**
- Method and means for helium/hydrogen ratio measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c35 N79-12416
- GAS COOLED REACTORS**
- Gaseous core diffusion nuclear reactor for thermal energy generation
[NASA-CASE-LEW-10250-1] c22 N71-28759
- GAS COOLING**
- Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
[NASA-CASE-NPO-10309] c15 N69-23190
- Gas cooled high temperature thermocouple
[NASA-CASE-XLE-09475-1] c33 N71-15568
- GAS DENSITY**
- Dynamic sensor for gas pressure or density measurement
[NASA-CASE-YAC-02877] c14 N70-41681
- Device for simultaneously determining density, velocity, and temperature of streaming gas
[NASA-CASE-XLA-03375] c16 N71-24074
- Coherent light beam device and method for measuring gas density in vacuum chambers
[NASA-CASE-XER-11203] c14 N71-28994
- Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597
- Electrodeposition method for producing crystalline material from dense gaseous medium
[NASA-CASE-NPO-10440] c15 N72-21466
- Wide range dynamic pressure sensor with vibrating diaphragm for measuring density and pressure of gaseous environment
[NASA-CASE-ARC-10263-1] c14 N72-22438
- Absolute pressure measuring device for measuring gas density level in high vacuum range
[NASA-CASE-LAR-10000] c14 N73-30394
- Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector --- for determining density of gas
[NASA-CASE-ARC-10631-1] c74 N76-20958
- GAS DETECTORS**
- Method and transducer device for detecting presence of hydrogen gas
[NASA-CASE-XMF-03873] c06 N69-39733
- Development of device for detecting hydrogen in ambient environments
[NASA-CASE-NFS-11537] c14 N71-20442
- Gas leak detection in evacuated systems using ultraviolet radiation probe
[NASA-CASE-ERC-10034] c15 N71-24896
- Fast response miniature carbon dioxide detector with no moving parts for measuring concentration in any atmosphere
[NASA-CASE-MSC-13332-1] c14 N72-21408
- Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585
- Carbon monoxide monitor --- using real time operation
[NASA-CASE-MFS-22060-1] c35 N75-29380
- Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector --- for determining density of gas
[NASA-CASE-ARC-10631-1] c74 N76-20958
- Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742
- Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509
- Cryogenic liquid sensor
[NASA-CASE-NPO-10619-1] c35 N77-21393
- Optically selective, acoustically resonant gas detecting transducer
[NASA-CASE-ARC-10639-1] c35 N78-13400
- Stark cell optoacoustic detection of constituent gases in sample
[NASA-CASE-NPO-14143-1] c25 N79-10169
- Stark cell spectrophone with polarization modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392
- GAS DISCHARGE TUBES**
- Direct current powered self repeating plasma accelerator with interconnected annular and linear discharge channels
[NASA-CASE-XLA-03103] c25 N71-21693
- GAS DISCHARGES**
- Radio frequency noise generator having microwave slow-wave structure in gas discharge plasma
[NASA-CASE-XER-11019] c09 N71-23598
- GAS EVOLUTION**
- Development of filter system for control of outgas contamination in vacuum conditions using absorbent beds of molecular sieve zeolite, silica gel, and charcoal
[NASA-CASE-MFS-14711] c15 N71-26185
- GAS EXPANSION**
- Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051
- Method and apparatus for producing very low temperature refrigeration based on gas pressure balance
[NASA-CASE-XNP-08877] c15 N71-23025
- Gas-operated actuator with cyclic motion of expansion chamber
[NASA-CASE-NPO-11340] c15 N72-33477
- GAS FLOW**
- Tubular flow restrictor for gas flow control in pipeline
[NASA-CASE-NPO-10117] c15 N71-15608
- Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-MFS-12806] c14 N71-17588
- Burst diaphragm flow initiator for installation in short duration wind tunnels
[NASA-CASE-MFS-12915] c11 N71-17600
- Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization

GAS GENERATORS

SUBJECT INDEX

[NASA-CASE-XNP-01779] c12 N71-20815
Transducer for monitoring oxygen flow in
respirator
[NASA-CASE-FRC-10012] c14 N72-17329
Design, development, and operation of shock tube
with bypass piston tunnel
[NASA-CASE-NPO-12109] c11 N72-22245
Continuous gas flow control by fluidic
proportional thruster system
[NASA-CASE-ARC-10106-1] c28 N72-22769
Development of filter apparatus for gas
separation and characteristics of filter cell
support frame for improved operation
[NASA-CASE-HSC-12297] c14 N72-23457
Pressurized inert gas feed for lighting system
[NASA-CASE-KSC-10644] c09 N72-27227
Development of method for controlling vapor
content of gas
[NASA-CASE-NPO-10633] c03 N72-28025
Gas flow control device, including housing and
input port
[NASA-CASE-NPO-11479] c15 N73-13462
Compact hydrogenator
[NASA-CASE-NPO-11682-1] c35 N74-15127
Apparatus for establishing flow of a fluid mass
having a known velocity
[NASA-CASE-HFS-21424-1] c34 N74-27730
Condensate removal device for heat exchanger
[NASA-CASE-HSC-14143-1] c77 N75-20139
Flow measuring apparatus
[NASA-CASE-LEW-12078-1] c35 N75-30503
Gas compression apparatus
[NASA-CASE-HSC-14757-1] c35 N78-10428
Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384

GAS GENERATORS
Chlorine generator for purifying water in life
support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
Gas operated quick disconnect coupling for
umbilical connectors
[NASA-CASE-NPO-11202] c15 N72-25450
Actuator operated by electrolytic drive gas
generator and evacuator
[NASA-CASE-NPO-11369] c15 N73-13467
Development and operating principles of gas
generator for deploying recovery parachutes
from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N73-13898
Hydrogen rich gas generator
[NASA-CASE-NPO-13342-1] c37 N76-16446
Hydrogen-rich gas generator
[NASA-CASE-NPO-13464-1] c44 N76-18642
Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700
Hydrogen rich gas generator
[NASA-CASE-NPO-13464-2] c44 N76-29704
Hydrogen-rich gas generator
[NASA-CASE-NPO-13560-1] c44 N77-10636

GAS GUNS
Electric arc device for minimizing electrode
ablation and heating gases to supersonic or
hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628

GAS HEATING
Bimetallic fluid displacement apparatus --- for
stirring and heating stored gases and liquids
[NASA-CASE-ARC-10441-1] c35 N74-15126

GAS INJECTION
Pressurized gas injection for burning rate
control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819
Compact hydrogenator
[NASA-CASE-NPO-11682-1] c35 N74-15127
Gas chromatograph injection system
[NASA-CASE-ARC-10344-2] c35 N75-26334
In-situ laser retorting of oil shale
[NASA-CASE-LEW-12217-1] c43 N78-14452
Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089

GAS IONIZATION
Electrostatic modulator for communicating
through plasma sheath formed around spacecraft
during reentry
[NASA-CASE-XLA-01400] c07 N70-41331
Multichannel photoionization chamber for
measuring absorption, photoionization yield,
and coefficients of gases
[NASA-CASE-ERC-10044-1] c14 N71-27090

Modulated hydrogen ion flame detector
[NASA-CASE-ARC-10322-1] c35 N76-18403
Gas ion laser construction for electrically
isolating the pressure gauge thereof
[NASA-CASE-HFS-22597] c36 N78-17366
Charge transfer reaction laser with
preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402
Hydrogen hollow cathode ion source
[NASA-CASE-LEW-12940-1] c75 N79-10894

GAS LASERS
Gas laser frequency stabilized by position of
mirrors in resonant cavity
[NASA-CASE-XGS-03644] c16 N71-18614
Inert gas metallic vapor laser
[NASA-CASE-NPO-13449-1] c36 N75-32441
Diffused waveguiding capillary tube with
distributed feedback for a gas laser
[NASA-CASE-NPO-13544-1] c36 N76-18428
Gas ion laser construction for electrically
isolating the pressure gauge thereof
[NASA-CASE-HFS-22597] c36 N78-17366
Charge transfer reaction laser with
preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402

GAS LUBRICANTS
High temperature gas lubricant consisting of two
fluoro-bromo-methanes
[NASA-CASE-XLE-00353] c18 N70-39897
Thrust bearing
[NASA-CASE-LEW-11949-1] c37 N76-29588
Cantilever mounted resilient pad gas bearing
[NASA-CASE-LEW-12569-1] c37 N79-10418

GAS MASERS
Solid state chemical source for ammonia beam
masers
[NASA-CASE-XGS-01504] c16 N70-41578
Atomic hydrogen maser with bulb temperature
control by output frequency difference signal
for wall shift elimination
[NASA-CASE-HQN-10654-1] c16 N73-13489
Method of producing a storage bulb for an atomic
hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029
Atomic standard with variable storage volume
[NASA-CASE-GSC-11895-1] c35 N76-15436

GAS MIXTURES
Gas analyzer for bi-gaseous mixtures suitable
for use in test facilities
[NASA-CASE-XLA-01131] c14 N71-10774
Equipment for measuring partial water vapor
pressure in gas tank
[NASA-CASE-XMS-01618] c14 N71-20741
Separation cell with permeable membranes for
fluid mixture component separation
[NASA-CASE-XMS-02952] c18 N71-20742
Gas chromatographic method for analyzing
hydrogen deuterium mixtures
[NASA-CASE-NPO-11322] c06 N72-25146
Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700
Hydrogen-rich gas generator
[NASA-CASE-NPO-13560-1] c44 N77-10636

GAS PIPES
Tubular flow restrictor for gas flow control in
pipeline
[NASA-CASE-NPO-10117] c15 N71-15608

GAS PRESSURE
Expulsion and measuring device for determining
quantity of liquid in tank under conditions of
weightlessness
[NASA-CASE-XMS-01546] c14 N70-40233
Dynamic sensor for gas pressure or density
measurement
[NASA-CASE-XAC-02877] c14 N70-41681
Wide range dynamic pressure sensor with
vibrating diaphragm for measuring density and
pressure of gaseous environment
[NASA-CASE-ARC-10263-1] c14 N72-22438
Measurement of gas production of microorganisms
--- using pressure sensors
[NASA-CASE-LAR-11326-1] c35 N75-33368
Depressurization of arc lamps
[NASA-CASE-NPO-10790-1] c33 N77-21316
A pressure limiting propellant actuating system
[NASA-CASE-HSC-18179-1] c20 N78-31162

GAS STREAMS
Device for simultaneously determining density,
velocity, and temperature of streaming gas

SUBJECT INDEX

GATES (CIRCUITS)

- [NASA-CASE-XLA-03375] c16 N71-24074
- Stagnation pressure probe --- for measuring pressure of supersonic gas streams
- [NASA-CASE-LAR-11139-1] c35 N74-32878
- Process for removing sulfur dioxide from gas streams --- using iron as a catalyst
- [NASA-CASE-MSC-16299-1] c45 N77-31668
- Variable mixer propulsion cycle
- [NASA-CASE-LEW-12917-1] c07 N78-18067
- Simultaneous treatment of SO2 containing stack gases and waste water
- [NASA-CASE-MSC-16258-1] c45 N79-12584
- GAS TEMPERATURE**
- Device for simultaneously determining density, velocity, and temperature of streaming gas
- [NASA-CASE-XLA-03375] c16 N71-24074
- GAS TRANSPORT**
- Purging means and method for Xenon arc lamps
- [NASA-CASE-NPO-11978] c31 N78-17238
- GAS TUBES**
- Toggle mechanism for pinching metal tubes
- [NASA-CASE-GSC-12274-1] c37 N78-25428
- GAS TURBINE ENGINES**
- Variable-orifice hydraulic mechanism for aircraft gas turbine engine fuel control
- [NASA-CASE-LEW-11187-1] c28 N73-19793
- Swirl can, full-annulus combustion chambers for high performance gas turbine engines
- [NASA-CASE-LEW-11326-1] c23 N73-30665
- Controlled separation combustor --- airflow distribution in gas turbine engines
- [NASA-CASE-LEW-11593-1] c20 N76-14190
- Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
- [NASA-CASE-LEW-11179-1] c27 N76-16229
- Dual output variable pitch turbofan actuation system
- [NASA-CASE-LEW-12419-1] c07 N77-14025
- Oil cooling system for a gas turbine engine
- [NASA-CASE-LEW-12830-1] c07 N77-23106
- Blade retainer assembly
- [NASA-CASE-LEW-12608-1] c07 N77-27116
- Nickel base alloy --- for gas turbine engine stator vanes
- [NASA-CASE-LEW-12270-1] c26 N77-32280
- Bearing seat usable in a gas turbine engine
- [NASA-CASE-LEW-12477-1] c37 N77-32501
- Oil cooling system for a gas turbine engine
- [NASA-CASE-LEW-12321-1] c37 N78-10467
- Variable cycle gas turbine engines
- [NASA-CASE-LEW-12916-1] c37 N78-17384
- Integrated gas turbine engine-nacelle
- [NASA-CASE-LEW-12389-2] c07 N78-18066
- Variable mixer propulsion cycle
- [NASA-CASE-LEW-12917-1] c07 N78-18067
- Automotive gas turbine fuel control
- [NASA-CASE-LEW-12785-1] c37 N78-24545
- Gas turbine engine with recirculating bleed
- [NASA-CASE-LEW-12452-1] c07 N78-25
- Power control for hot gas engines
- [NASA-CASE-NPO-14220-1] c37 N78-25430
- Independent power generator
- [NASA-CASE-LAR-11208-1] c44 N78-32539
- Redundant disc
- [NASA-CASE-LEW-12496-1] c07 N78-33101
- Integrated gas turbine engine-nacelle
- [NASA-CASE-LEW-12389-3] c07 N79-14096
- Variable area exhaust nozzle
- [NASA-CASE-LEW-12378-1] c07 N79-14097
- GAS TURBINES**
- Method for maintaining good performance in gas turbine during air flow distortion
- [NASA-CASE-LEW-10286-1] c28 N71-28915
- Gas turbine exhaust nozzle --- for noise reduction
- [NASA-CASE-LEW-11569-1] c07 N74-15453
- Gas turbine engine with convertible accessories
- [NASA-CASE-LEW-12390-1] c07 N78-17056
- Counter pumping debris excluder and separator --- gas turbine shaft seals
- [NASA-CASE-LEW-11855-1] c07 N78-25090
- Direct heating surface combustor
- [NASA-CASE-LEW-11877-1] c34 N78-27357
- Apparatus and method for reducing thermal stress in a turbine rotor
- [NASA-CASE-LEW-12232-1] c07 N79-10057
- Method and turbine for extracting kinetic energy from a stream of two-phase fluid
- [NASA-CASE-NPO-14130-1] c34 N79-20335
- GAS VALVES**
- High-temperature, high-pressure spherical segment valve
- [NASA-CASE-XAC-00074] c15 N70-34817
- Shrink-fit vacuum system gas valve
- [NASA-CASE-XGS-00587] c15 N70-35087
- Gas valve operated by thermally expanding and contracting device
- [NASA-CASE-XLE-00815] c15 N70-35407
- Three-port transfer valve with one port open continuously suitable for manned space flight
- [NASA-CASE-XAC-01158] c15 N71-23051
- GAS WELDING**
- Emission spectroscopy method for contamination monitoring of inert gas metal arc welding
- [NASA-CASE-XNF-02039] c15 N71-15871
- Grain refinement control in TIG arc welding
- [NASA-CASE-MSC-19095-1] c37 N75-19683
- GAS-LIQUID INTERACTIONS**
- Fluid control apparatus and method
- [NASA-CASE-LAR-11110-1] c34 N75-26282
- GASDYNAMIC LASERS**
- Diatomic infrared gasdynamic laser --- for producing different wavelengths
- [NASA-CASE-ARC-10370-1] c36 N75-31426
- GASEOUS DIFFUSION**
- Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
- [NASA-CASE-XLE-02531] c05 N71-23080
- Gaseous core diffusion nuclear reactor for thermal energy generation
- [NASA-CASE-LEW-10250-1] c22 N71-28759
- Gas diffusion liquid storage bag and method of use for storing blood
- [NASA-CASE-NPO-13930-1] c52 N79-14749
- GASEOUS FISSION REACTORS**
- Nuclear gaseous reactor for heating working fluid to high temperatures
- [NASA-CASE-XLE-00321] c22 N70-34572
- Gaseous core diffusion nuclear reactor for thermal energy generation
- [NASA-CASE-LEW-10250-1] c22 N71-28759
- GASEOUS ROCKET PROPELLANTS**
- Electrostatic ion engines using high velocity electrons to ionize propellant
- [NASA-CASE-XLE-00376] c28 N70-37245
- Detonation reaction engine comprising outer housing enclosing pair of inner walls for continuous flow
- [NASA-CASE-XNF-06926] c28 N71-22983
- GASES**
- Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
- [NASA-CASE-NPO-10070] c15 N74-27372
- High speed scanner for measuring mass of preselected gases at high sampling rate
- [NASA-CASE-LAR-10766-1] c14 N72-21432
- Observation window for internal gas confining chamber
- [NASA-CASE-NPO-10890] c11 N73-12265
- Device for detection of combustion light preceding gaseous explosions
- [NASA-CASE-LAR-10739-1] c14 N73-16484
- Low gravity phase separator
- [NASA-CASE-MSC-14773-1] c35 N78-12390
- Water separator
- [NASA-CASE-XMS-01295-1] c37 N79-21345
- GASKETS**
- Leakproof soft metal seal for use in very high vacuum systems operating at cryogenic temperatures
- [NASA-CASE-XGS-02441] c15 N70-41629
- Reinforced polyquinoxaline gasket and method of preparing the same --- resistant to ionizing radiation and liquid hydrogen temperatures
- [NASA-CASE-MFS-21364-1] c37 N74-18126
- GATES (CIRCUITS)**
- Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification
- [NASA-CASE-XGS-01881] c09 N70-40123
- Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
- [NASA-CASE-XLA-07497] c09 N71-12514

GATES (OPENINGS)

Logic AND gate for fluid circuits
[NASA-CASE-XLA-07391] c12 N71-17579

Synchronous counter design incorporating cascaded binary stages driven by previous stages and inputs through NAND gates
[NASA-CASE-XGS-02440] c08 N71-19432

Switching series regulator with gating control network
[NASA-CASE-XHS-09352] c09 N71-23316

Memory device for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295

GATES (OPENINGS)

Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935

GAW-1 AIRFOIL

Airfoil shape for flight at subsonic speeds --- design analysis and aerodynamic characteristics of the GAW-1 airfoil
[NASA-CASE-LAR-10585-1] c02 N76-22154

GEAR TREES

Wobble gear drive mechanism --- for aerospace environments
[NASA-CASE-WOO-00625] c37 N78-17385

Belt for transmitting power from a driving member to a driven member
[NASA-CASE-GSC-12289-1] c37 N78-32435

GEARS

Precision stepping drive device using cam disk
[NASA-CASE-MFS-14772] c15 N71-17692

Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744

Self lubricating gears and other mechanical parts having surface adapted to frictional contact
[NASA-CASE-MFS-14971] c15 N71-24984

Concentric differential gearing arrangement
[NASA-CASE-ARC-10462-1] c37 N74-27901

Power control for hot gas engines
[NASA-CASE-NPO-14220-1] c37 N78-25430

Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377

GELLED ROCKET PROPELLANTS

Method and apparatus for producing fine particles in cryogenic liquid bath for gelled rocket propellants
[NASA-CASE-NPO-10250] c23 N71-16212

GELS

Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components
[NASA-CASE-XNP-00920] c15 N71-15906

GENERATORS

Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-MYS-21424-1] c34 N74-27730

GEOLOGICAL SURVEYS

Borehole geological assessment
[NASA-CASE-NPC-14231-1] c46 N79-19521

GERMANIUM

Germanium coated microbridge and method
[NASA-CASE-MFS-23274-1] c33 N78-13320

GIMBALS

Gimballed partially submerged nozzle for solid propellant rocket engines for providing directional control
[NASA-CASE-XNP-01544] c28 N70-34162

Inertial gimbal alignment system for spacecraft guidance
[NASA-CASE-XNP-01669] c21 N71-23289

Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694

Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
[NASA-CASE-MSC-10959] c15 N71-26243

Low friction bearing and lock mechanism for two-axis gimbal carrying satellite payload
[NASA-CASE-GSC-10556-1] c31 N71-26537

SUBJECT INDEX

Failure detection and control means for improved drift performance of a gimballed platform system
[NASA-CASE-MFS-23551-1] c04 N76-26175

GLANDS (SEALS)

Development of mating flat surfaces to inhibit leakage of fluid around shafts
[NASA-CASE-XLE-10326-2] c15 N72-29488

GLASS

Fabricating solar cells with dielectric layers to improve glass fusion
[NASA-CASE-XGS-04531] c03 N69-24267

Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
[NASA-CASE-XLE-02624] c12 N69-39988

Metal pattern bonding technique for cover glass attachment to silicon solar cells for space applications
[NASA-CASE-XLE-08569] c03 N71-23449

Apparatus for applying thin glass slides to solar cells
[NASA-CASE-NPO-10575] c03 N72-25019

Glass-to-metal seals comprising relatively high expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063

Covered silicon solar cells and method of manufacture --- with polymeric films
[NASA-CASE-LEW-11065-2] c44 N76-14600

Window defect planar mapping technique
[NASA-CASE-MSC-19442-1] c74 N77-10899

Method of forming shrink-fit compression seal
[NASA-CASE-LAR-11563-1] c37 N77-23482

Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N78-32260

GLASS COATINGS

Method of attaching cover glass to silicon solar cell without using adhesive
[NASA-CASE-XLE-08569-2] c03 N71-24681

Helium outgassing process for fused glass coating on ion accelerator grid
[NASA-CASE-LEW-10278-1] c15 N71-28582

Development of process for constructing protective covers for solar cells
[NASA-CASE-GSC-11514-1] c03 N72-24037

Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings
[NASA-CASE-LAR-10385-3] c74 N78-15879

GLASS ELECTRODES

Liquid junction for glass electrode or pH meters
[NASA-CASE-NFO-10682] c15 N70-34699

GLASS FIBER REINFORCED PLASTICS

Ceramic fiber insulating material and method of producing same --- aircraft construction materials
[NASA-CASE-MSC-14795-2] c24 N78-25138

Low density bismaleimide-carbon microballoon composites
[NASA-CASE-ARC-11040-1] c24 N79-16915

GLASS FIBERS

Nonmagnetic hermetically sealed battery case made of epoxy resin and woven glass tape for use with electrochemical cells in spacecraft
[NASA-CASE-XGS-00886] c03 N71-11053

Lathe tool and holder combination for machining resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489

Development and characteristics of polyimide impregnated laminates with fiberglass cloth backing for application as printed circuit boards
[NASA-CASE-MFS-20408] c18 N73-12604

Method of repairing discontinuity in fiberglass structures
[NASA-CASE-LAR-10416-1] c24 N74-30001

Fiber modified polyurethane foam for ballistic protection
[NASA-CASE-ARC-10714-1] c27 N76-15310

Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

Method of manufacture of bonded fiber flywheel
[NASA-CASE-MFS-23674-1] c24 N78-27182

GLAUCOMA

Intra-ocular pressure normalization apparatus
[NASA-CASE-LEW-12955-1] c52 N77-30736

Intra-ocular pressure normalization technique and equipment
[NASA-CASE-LEW-12723-1] c52 N77-30737

GLIDE PATHS

Integrated lift/drag controller for aircraft

SUBJECT INDEX

GROUND STATIONS

- [NASA-CASE-ARC-10456-1] c05 N75-12930
- GLOBES**
Orbital and entry tracking accessory for globes
--- to provide range requirements for reentry
vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015
- GLOVES**
Gas purged dry box glove reducing permeation of
air or moisture into dry box or isolator by
diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080
Restraining mechanism
[NASA-CASE-HSC-13054] c54 N78-17677
- GLOW DISCHARGES**
Deposition of alloy films --- on irregularly
shaped metal object
[NASA-CASE-LEW-11262-1] c27 N74-13270
Boron trifluoride coatings for thermoplastic
materials and method of applying same in glow
discharge
[NASA-CASE-ARC-11057-1] c27 N78-31233
Electric discharge for treatment of trace
contaminants
[NASA-CASE-ARC-10975-1] c33 N79-15245
- GLUCOSE**
Use of enzyme hexokinase and glucose to reduce
inherent light levels of ATP in luciferase
compositions
[NASA-CASE-IGS-05533] c04 N69-27487
- GOLD COATINGS**
Lithium drifted silicon radiation detector with
gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
- GONDOLAS**
System for controlling torque buildup in
suspension of gondola connected to balloon by
parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N73-13008
- GRANULAR MATERIALS**
Development of device for separating,
collecting, and viewing soil particles
[NASA-CASE-INP-09770] c15 N71-20440
- GRAPHITE**
Silver chloride use in technique for fusion
bonding of graphite to silver, glass,
ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735
Method of preparing graphite reinforced aluminum
composite
[NASA-CASE-HFS-21077-1] c24 N75-28135
Method of adhering bone to a rigid substrate
using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215
- GRAPHITE-EPOXY COMPOSITE MATERIALS**
Partial interlaminar separation system for
composites
[NASA-CASE-LAR-12065-1] c24 N78-22162
- GRATINGS (SPECTRA)**
Concave grating spectrometer for use in near and
vacuum ultraviolet regions
[NASA-CASE-XGS-01036] c14 N70-40003
Diffractoid grating configuration for X-ray and
ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N78-32857
- GRAVIMETERS**
Device for determining acceleration of gravity
by interferometric measurement of travel of
falling body
[NASA-CASE-INP-05844] c14 N71-17587
- GRAVITATION**
Design of precision vertical alignment system
using laser with gravitationally sensitive
cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397
Anti-gravity device
[NASA-CASE-HFS-22758-1] c70 N75-26789
- GRAVITATIONAL CONSTANT**
Gravity device for accurate and rapid indication
of relative gravity conditions aboard
accelerating carrier
[NASA-CASE-INP-00424] c11 N70-38196
- GRAVITATIONAL EFFECTS**
Gravity environment simulation by locomotion and
restraint aid for studying manual operation
performance of astronauts at zero gravity
[NASA-CASE-ARC-10153] c05 N71-28619
Rotary plant growth accelerating apparatus ---
weightlessness
[NASA-CASE-ARC-10722-1] c51 N75-25503
- GRAVITATIONAL FIELDS**
Difference indicating circuit used in
conjunction with device measuring
gravitational fields
[NASA-CASE-INP-08274] c10 N71-13537
Process for preparation of large-particle size
monodisperse latexes
[NASA-CASE-HFS-25000-1] c25 N79-14171
- GRAVITY GRADIENT SATELLITES**
Stabilization system for gravity-oriented
satellites using single damper rod
[NASA-CASE-XAC-01591] c31 N71-17729
Method of stationkeeping for lenticular gravity
gradient satellites
[NASA-CASE-XLA-03132] c31 N71-22969
- GRAVITY GRADIOMETERS**
Gravity device for accurate and rapid indication
of relative gravity conditions aboard
accelerating carrier
[NASA-CASE-INP-00424] c11 N70-38196
Gravity gradient attitude control system with
gravity gradiometer and reaction wheels for
artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324
- GRAZING INCIDENTS**
Diffractoid grating configuration for X-ray and
ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N78-32857
- GRIDS**
Method of making dished ion thruster grids
[NASA-CASE-LEW-11694-1] c20 N75-18310
Apparatus for forming dished ion thruster grids
[NASA-CASE-LEW-11694-2] c37 N76-14461
Method of constructing dished ion thruster grids
to provide hole array spacing compensation
[NASA-CASE-LEW-11876-1] c20 N76-21276
Solar cell grid patterns
[NASA-CASE-NPO-13087-2] c44 N76-31666
- GRINDING (MATERIAL REMOVAL)**
Laser device for removing material from rotating
object for dynamic balancing
[NASA-CASE-HFS-11279] c16 N71-20400
Grinding mixtures of powdered metals and inert
fillers for conversion to halide
[NASA-CASE-LEW-10450-1] c15 N72-25448
Method of forming a sharp edge on an optical
device --- beam splitters for Solar Maximum
Missions spectropolarimeter
[NASA-CASE-GSC-12348-1] c74 N78-29902
- GRINDING MACHINES**
Grinding arrangement for ball nose milling cutters
[NASA-CASE-LAR-10450-1] c37 N74-27905
- GROOVES**
Nonreusable energy absorbing device comprising
ring member with plurality of recesses,
cutting members, and guide member mounted in
each recess
[NASA-CASE-INP-10040] c15 N71-22877
Spiral groove seal --- for hydraulic rotating
shaft
[NASA-CASE-LEW-10326-3] c37 N74-10474
Spiral groove seal --- for rotating shaft
[NASA-CASE-XLE-10326-4] c37 N74-15125
- GROUND EFFECT MACHINES**
Hovering type flying vehicle design and
principle mechanisms for manned or unmanned use
[NASA-CASE-HSC-12111-1] c02 N71-11039
Platform with several ground effect pads and
plenum chambers
[NASA-CASE-HFS-14685] c31 N71-15689
Design and development of active control system
for air cushion vehicle to reduce or eliminate
effects of excessive vertical vibratory
acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
Open tube guideway for high speed air cushioned
vehicles
[NASA-CASE-LAR-10256-1] c85 N74-34672
- GROUND HANDLING**
Supporting and protecting frame structure and
plug for empty thrust chamber assembly,
handling, and shipping
[NASA-CASE-INP-00580] c11 N70-35383
- GROUND STATIONS**
Traffic control system for supersonic transports
using synchronous satellite for data relay
between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287

GROUND SUPPORT EQUIPMENT

SUBJECT INDEX

Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118

Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323

GROUND SUPPORT EQUIPMENT

Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-IMS-05454-1] c07 N71-12391

Controlled release device for use in launching rockets or missiles
[NASA-CASE-IXS-03338] c15 N71-24043

Apparatus for measuring an aircraft's speed and height
[NASA-CASE-LAR-12275-1] c35 N79-18296

GROUND-AIR-GROUND COMMUNICATIONS

Fabry-Perot interferometer retrodirective reflector modulator for optical communication
[NASA-CASE-IGS-04480] c16 N69-27491

Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-IXP-01501] c21 N70-41930

Location identification system with ground based transmitter and aircraft borne receiver/decoder
[NASA-CASE-BRC-10324] c07 N72-25173

GUIDANCE (NOTION)

Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-BSC-12111-1] c02 N71-11039

Development of adjustable attitude guide block for setting pins perpendicular to irregular convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571

Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136

Guide member for stabilizing cable of open shaft elevator
[NASA-CASE-KSC-10513] c15 N72-25453

GUIDANCE SENSORS

Light sensitive digital aspect sensor for attitude control of earth satellites or space probes
[NASA-CASE-IGS-00359] c14 N70-34158

Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-IXP-09572] c14 N71-15621

Optical gauging system for monitoring machine tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673

Development of light sensing system for controlled orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-25414

Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951

Terminal guidance sensor system
[NASA-CASE-NPO-14521-1] c54 N79-20746

GUN LAUNCHERS

Self-obturing gas-operated launcher for launching projectiles in decontaminated medium
[NASA-CASE-NPO-11013] c11 N72-22247

GUN PROPELLANTS

Nitramine propellants --- gun propellant burning rate
[NASA-CASE-NPO-14103-1] c28 N78-31255

Hypervelocity gun --- using both electric and chemical energy for projectile propulsion
[NASA-CASE-XLE-03186-1] c09 N79-21084

GUNN EFFECT

Voltage tunable Gunn effect semiconductor for microwave generation
[NASA-CASE-XER-07894] c09 N71-18721

Gunn effect microwave diodes with RF shielding
[NASA-CASE-BRC-10119] c26 N72-21701

Multiterminal Gunn-type semiconductor microwave generator for producing stable signals
[NASA-CASE-XER-07895] c26 N72-25679

Microwave generator using Gunn effect for magnetic tuning
[NASA-CASE-NPO-12106] c09 N73-15235

GUNS

Method of peening and portable peening gun
[NASA-CASE-NFS-23047-1] c37 N76-18454

GYRATORS

Design of gyrotor circuit using operational amplifiers to replace ungrounded inductors
[NASA-CASE-XAC-10608-1] c09 N71-12517

Gyrotor circuit using MOS field effect transistors
[NASA-CASE-NFS-21433] c09 N73-20232

Integrated P-channel MOS gyrotor
[NASA-CASE-NFS-22343-1] c33 N74-34638

Integrable power gyrotor --- with Z-matrix design using parallel transistors
[NASA-CASE-NFS-22342-1] c33 N75-30428

GYROSCOPES

Externally pressurized air bearing for gyros operating in high temperature, low gravity environments
[NASA-CASE-IXP-00515] c15 N70-34664

Air bearings for spacecraft gyros
[NASA-CASE-IXP-00339] c15 N70-39896

Development of spacecraft experiment pointing and attitude control system
[NASA-CASE-XLA-05464] c21 N71-14132

Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position
[NASA-CASE-NPO-13044-1] c35 N74-15094

All sky pointing attitude control system
[NASA-CASE-ARC-10716-1] c35 N77-20399

GYROSTABILIZERS

Passive dual spin misalignment compensators --- gyrostabilized device
[NASA-CASE-GSC-11479-1] c35 N74-28097

Angular momentum control device used for stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158

H

HAFNIUM

Thermal shock resistant hafnia ceramic materials
[NASA-CASE-LAR-10894-1] c18 N73-14584

HALIDES

Grinding mixtures of powdered metals and inert fillers for conversion to halide
[NASA-CASE-LEW-10450-1] c15 N72-25448

Zinc-halide battery with molten electrolyte
[NASA-CASE-NPO-11961-1] c44 N76-18643

HALL EFFECT

Current measurement by use of Hall effect generator
[NASA-CASE-XAC-01662] c14 N71-23037

Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-NFS-20385] c09 N71-24904

Development of Hall effect transducer for converting mechanical shaft rotations into proportional electrical signals
[NASA-CASE-LAR-10620-1] c09 N72-25255

Speed control system for dc motor equipped with brushless Hall effect device
[NASA-CASE-NFS-20207-1] c09 N73-32107

Hall effect magnetometer
[NASA-CASE-LEW-11632-2] c35 N75-13213

HALL GENERATORS

Current measurement by use of Hall effect generator
[NASA-CASE-XAC-01662] c14 N71-23037

HALOGENS

Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739

HAMMERS

Exponential horn, copper plate, magnetic hammer, and anvil in apparatus for making diamonds
[NASA-CASE-NFS-20698] c15 N72-20446

HAND (ANATOMY)

Mechanically operated hand which can depress trigger using touch control device
[NASA-CASE-NFS-20413] c15 N72-21463

Therapeutic hand exerciser
[NASA-CASE-LAR-11667-1] c52 N76-19785

Compact artificial hand
[NASA-CASE-NPO-13906-1] c54 N77-32723

HANDLING EQUIPMENT

Supporting and protecting frame structure and plug for empty thrust chamber assembly,

- handling, and shipping
[NASA-CASE-XNP-00580] c11 N70-35383
- Handling tool for printed circuit cards
[NASA-CASE-NFS-20453] c15 N71-29133
- Collapsible corrugated horn antenna
[NASA-CASE-LAR-11745-1] c32 N77-24339
- HARDENING (MATERIALS)**
Method of heat treating age-hardenable alloys
[NASA-CASE-XNP-01311] c26 N75-29236
- HARMONIC GENERATORS**
Wideband generator for producing sine wave
quadrature and second harmonic of input signal
[NASA-CASE-NPO-11133] c10 N72-20223
- HARNESSES**
Helmet and torso tiedown mechanism for
shortening pressure suits upon inflation
[NASA-CASE-XMS-00784] c05 N71-12335
- One hand backpack harness
[NASA-CASE-LAR-10102-1] c05 N72-23085
- Shoulder harness and lap belt restraint system
[NASA-CASE-ARC-10519-2] c05 N75-25915
- HATCHES**
Design and specifications of emergency escape
system for spacecraft structures
[NASA-CASE-HSC-12086-1] c05 N71-12345
- HEART**
EKG and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619
- HEART FUNCTION**
Development of instantaneous reading tachometer
for measuring electrocardiogram signal rate
[NASA-CASE-NFS-20418] c14 N73-24473
- Ultrasonic biomedical measuring and recording
apparatus --- for recording motion of internal
organs such as heart valves
[NASA-CASE-ARC-10597-1] c52 N74-20726
- HEART RATE**
Digital cardiometer incorporating circuit
for measuring heart rate of subject over
predetermined portion of one minute also
converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
- Development of instantaneous reading tachometer
for measuring electrocardiogram signal rate
[NASA-CASE-NFS-20418] c14 N73-24473
- Digital computing cardiometer
[NASA-CASE-NFS-20284-1] c52 N74-12778
- HEAT**
Thermionic converter for converting heat energy
directly into electrical energy
[NASA-CASE-XLE-01903] c22 N71-23599
- HEAT EXCHANGERS**
Electrothermal rocket engine using resistance
heated heat exchanger
[NASA-CASE-XLE-00267] c28 N70-33356
- Space suit body heat exchanger design composed
of thermal conductance yarn and liquid coolant
loops
[NASA-CASE-XMS-09571] c05 N71-19439
- Dual solid cryogenics for spacecraft refrigeration
insuring low temperature cooling for extended
periods
[NASA-CASE-GSC-10188-1] c23 N71-24725
- Shell-side liquid metal boiler employing tube
and shell heat exchanger
[NASA-CASE-NPO-10831] c33 N72-20915
- Heat exchanger and decontamination system for
multistage refrigeration unit
[NASA-CASE-NPO-10634] c23 N72-25619
- Condensate removal device for heat exchanger
[NASA-CASE-HSC-14143-1] c77 N75-20139
- Heat exchanger system and method
[NASA-CASE-LAR-10799-2] c34 N76-17317
- Heat transfer device
[NASA-CASE-NFS-22938-1] c34 N76-18374
- Heat exchanger
[NASA-CASE-NFS-22991-1] c34 N77-10463
- Flat-plate heat pipe
[NASA-CASE-GSC-11998-1] c34 N77-32413
- Combustor --- low nitrogen oxide formation
[NASA-CASE-NPO-13958-1] c25 N79-11151
- Fuel delivery system including heat exchanger
means
[NASA-CASE-LRW-12793-1] c37 N79-11403
- Heat exchanger --- rocket combustion chambers
and cooling systems
[NASA-CASE-LRW-12252-1] c34 N79-13288
- Heat exchanger and method of making --- bonding
rocket chambers with a porous metal matrix
[NASA-CASE-LRW-12441-1] c34 N79-13289
- Thermal energy transformer
[NASA-CASE-NPO-14058-1] c44 N79-18443
- An improved solar energy receiver for a stirling
engine
[NASA-CASE-NPO-14619-1] c44 N79-20513
- A heat exchanger and method of making --- rocket
lining
[NASA-CASE-LRW-12441-2] c34 N79-21313
- HEAT FLUX**
Heat flux sensor assembly with proviso for heat
shield to reduce radiative transfer between
sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459
- Heat flux sensor adapted for mounting on
aircraft or spacecraft to measure aerodynamic
heat flux inflow to aircraft skin
[NASA-CASE-XPR-03802] c33 N71-23085
- Radial heat flux transformer for use in heating
and cooling processes
[NASA-CASE-NPO-10828] c33 N72-17948
- HEAT MEASUREMENT**
Electromagnetic energy detection by thermal
sensor with vibrating electrode
[NASA-CASE-XAC-10768] c09 N71-18830
- Specific wavelength colorimeter --- for
measuring given solute concentration in test
sample
[NASA-CASE-HSC-14081-1] c35 N74-27860
- HEAT PIPES**
Electric power system utilizing thermionic
plasma diodes in parallel and heat pipes as
cathodes
[NASA-CASE-XNP-05843] c03 N71-11055
- Microwave power receiving antenna solving heat
dissipation problems by construction of
elements as heat pipe devices
[NASA-CASE-NFS-20333] c09 N71-13486
- Double-wall isothermal cylinder containing heat
transfer fluid thermal reservoir as spacecraft
insulation cover
[NASA-CASE-NFS-20355] c33 N71-25353
- Structural heat pipe --- for spacecraft wall
thermal insulation system
[NASA-CASE-GSC-11619-1] c34 N75-12222
- Method of forming a wick for a heat
pipe
[NASA-CASE-NPO-13391-1] c34 N76-27515
- Production of I-123
[NASA-CASE-LRW-11390-3] c25 N76-29379
- Heat pipe with dual working fluids
[NASA-CASE-ARC-10198] c34 N78-17336
- Multi-chamber controllable heat pipe
[NASA-CASE-ARC-10199] c34 N78-17337
- HEAT PUMPS**
Thermal pump-compressor for converting solar
energy
[NASA-CASE-XLA-00377] c33 N71-17610
- Manually activated heat pump for mechanically
converting human operator output into heat
energy
[NASA-CASE-NPO-10677] c05 N72-11084
- Design and development of thermomechanical pump
for transmitting warming fluid through fluid
circuit to control temperature of spacecraft
instrumentation
[NASA-CASE-NPO-11417] c15 N73-24513
- Magnetic heat pumping
[NASA-CASE-LRW-12508-2] c34 N77-32435
- Magnetic heat pumping
[NASA-CASE-LRW-12508-1] c34 N78-17335
- HEAT RADIATORS**
Capillary radiator for carrying heat transfer
liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035
- Hydraulic actuator design for space deployment
of heat radiators
[NASA-CASE-HSC-11817-1] c15 N71-26611
- Development of method and equipment for testing
heat radiative properties of material under
controlled environmental conditions
[NASA-CASE-NFS-20096] c14 N71-30026
- HEAT RESISTANT ALLOYS**
Preparation of nickel alloys for jet turbine
blades operating at high temperatures
[NASA-CASE-XLE-00151] c17 N70-33283
- Nickel alloy series for aerospace structures
subjected to high temperatures
[NASA-CASE-XLE-00283] c17 N70-36616

HEAT SHIELDING

SUBJECT INDEX

High temperature cobalt-base alloy resistant to corrosion by liquid metals and to sublimation in vacuum environment
[NASA-CASE-XLE-02991] c17 N71-16025

Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365

Superalloys from prealloyed powders at high temperatures
[NASA-CASE-LEW-10805-1] c15 N73-13465

Method of making pressure tight seal for super alloy
[NASA-CASE-LAR-10170-1] c37 N74-11301

Method of forming articles of manufacture from superalloy powders
[NASA-CASE-LEW-10805-2] c37 N74-13179

Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-MFS-22324-1] c27 N75-27160

Cermet composition and method of fabrication --- heat resistant alloys and powders
[NASA-CASE-NPO-13120-1] c27 N76-15311

Metallic hot wire anemometer --- for high speed wind tunnel tests
[NASA-CASE-ARC-10911-1] c35 N77-20400

Method of growing composites of the type exhibiting the Soret effect --- improved structure of eutectic alloy crystals
[NASA-CASE-MFS-22926-1] c24 N77-27187

Directionally solidified eutectic gamma plus beta nickel-base superalloys
[NASA-CASE-LEW-12906-1] c26 N77-32279

Nickel base alloy --- for gas turbine engine stator vanes
[NASA-CASE-LEW-12270-1] c26 N77-32280

Directionally solidified eutectic gamma-gamma nickel-base superalloys
[NASA-CASE-LEW-12905-1] c26 N78-18183

High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-3] c27 N78-25219

HEAT SHIELDING

Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459

Oven for heat treating heat shields
[NASA-CASE-XMS-04318] c15 N69-27871

Compact heat shielding for interplanetary space vehicles
[NASA-CASE-XMS-00486] c33 N70-33344

Sandwich panel structure for removing heat from shield between hot and cold areas
[NASA-CASE-XLA-00349] c33 N70-37979

Aerodynamic configuration of reentry vehicle heat shield to provide longitudinal and directional stability at hypersonic velocities
[NASA-CASE-XMS-04142] c31 N70-41631

Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-02677] c31 N70-42075

Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
[NASA-CASE-XMF-08656] c06 N71-1124

Synthesis of schiff bases for heat shields by acetal amine reactions
[NASA-CASE-XNP-08652] c06 N71-11243

Preparation and characteristics of lightweight refractory insulation
[NASA-CASE-XMF-05279] c18 N71-16124

Development and characteristics of thermal radiation shielding of refractory metal foil used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145

Design and development of spacecraft with outer shell structure heat shielding and built-in, removable excursion module
[NASA-CASE-HSC-13047-1] c31 N71-25434

Structure of fabric layers for micrometeoroid protection garment with capability for eliminating heat shorts for use in manufacturing space suits
[NASA-CASE-HSC-12109] c18 N71-26285

Thermal insulation protection means
[NASA-CASE-HSC-12737-1] c34 N77-22423

Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under

ceramic tiles
[NASA-CASE-HSC-12619-2] c27 N79-12221

Thermal barrier pressure seal
[NASA-CASE-HSC-18134-1] c37 N79-17225

HEAT SINKS

Thermal conductive, electrically insulated cleavable adhesive connection between electronic module and heat sink
[NASA-CASE-XMS-02087] c09 N70-41717

Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature
[NASA-CASE-XMF-04208] c33 N71-29051

Tubular sublimatory evaporator heat sink
[NASA-CASE-ARC-10912-1] c34 N77-19353

Compact pulsed laser having improved heat conductance
[NASA-CASE-NPO-13147-1] c36 N77-25502

Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380

Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168

Electroexplosive device
[NASA-CASE-NPO-13858-1] c28 N79-11231

HEAT SOURCES

Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-XNP-09701] c14 N71-26475

Thermally cascaded thermoelectric generator with radioisotopic heat source
[NASA-CASE-NPO-10753] c03 N72-26031

Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LBW-11227-1] c73 N75-30876

Portable electrophoresis apparatus using minimum electrolyte
[NASA-CASE-NPO-13274-1] c25 N79-10163

HEAT STORAGE

Solar energy trap
[NASA-CASE-MFS-22744-1] c44 N76-24696

Thermal energy storage system --- operating on superheating of liquids
[NASA-CASE-MFS-23167-1] c44 N76-31667

HEAT TRANSFER

Thermal switch for transferring excess heat from one region to another heat dissipating one
[NASA-CASE-XNP-00463] c33 N70-36847

Sandwich panel structure for removing heat from shield between hot and cold areas
[NASA-CASE-XLA-00349] c33 N70-37979

Apparatus for cryogenic liquid storage with heat transfer reduction and for liquid transfer at zero gravity conditions
[NASA-CASE-XLE-00345] c15 N70-38020

Method for improving heat transfer characteristics in nucleate boiling process
[NASA-CASE-XMS-04268] c33 N71-16277

Design and development of device for cooling inner conductor of coaxial cable
[NASA-CASE-XNP-09775] c09 N71-20445

Heat sensing instrument, using thermocouple junction connected under heavy conducting material
[NASA-CASE-XLA-01551] c14 N71-22989

Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199

Development and characteristics of cooling system to maintain temperature of rack mounted electronic modules
[NASA-CASE-HSC-12389] c33 N71-29052

Development of method and equipment for testing heat radiative properties of material under controlled environmental conditions
[NASA-CASE-MFS-20096] c14 N71-30026

Manually activated heat pump for mechanically converting human operator output into heat energy
[NASA-CASE-NPO-10677] c05 N72-11084

High intensity radiant energy pulse source for calibrating heat transfer gages with thermoluminescent shutter activation
[NASA-CASE-ABC-10178-1] c09 N72-17152

Development of thermocouple instrument for measuring temperature of wall heated by flowing fluid without disturbing boundary layer
[NASA-CASE-XLE-05230] c14 N72-27410

SUBJECT INDEX

HENISPHERICAL SHELLS

- Development and characteristics of thermal control system for maintaining constant temperature within spacecraft module with wide variations of component heat transfer
[NASA-CASE-GSC-11018-1] c31 N73-30829
- Thermal flux transfer system for maintaining thrust chamber of operative reaction motor at given temperatures
[NASA-CASE-NPO-12070-1] c28 N73-32606
- Electrostatically controlled heat transfer system for conducting thermal energy
[NASA-CASE-NPO-11942-1] c33 N73-32818
- Heat transfer device
[NASA-CASE-NPO-11120-1] c34 N74-18552
- Heat exchanger
[NASA-CASE-NPS-22991-1] c34 N77-10463
- Heat pipe with dual working fluids
[NASA-CASE-ARC-10198] c34 N78-17336
- HEAT TRANSMISSION**
- Heat flow calorimeter --- measures output of Ni-Cd batteries
[NASA-CASE-GSC-11434-1] c34 N74-27859
- Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876
- HEAT TREATMENT**
- High speed infrared furnace
[NASA-CASE-XLE-10466] c17 N69-25147
- Oven for heat treating heat shields
[NASA-CASE-XHS-04318] c15 N69-27871
- Vacuum method for molding thermosetting compounds used as ablative materials
[NASA-CASE-XLA-01091] c15 N71-10672
- Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders
[NASA-CASE-LEW-10393-1] c17 N71-15468
- White paint production by heating impure aluminum silicate clay having low solar absorptance
[NASA-CASE-XNP-02139] c18 N71-24184
- Method for diffusion welding dissimilar metals in vacuum chamber
[NASA-CASE-GSC-10303] c15 N72-22487
- Method of heat treating a formed powder product material
[NASA-CASE-LEW-10805-3] c26 N74-10521
- Diffusion welding --- heat treatment of nickel alloys following single step vacuum welding process
[NASA-CASE-LEW-11388-2] c37 N74-21055
- Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761
- Method of heat treating age-hardenal alloys
[NASA-CASE-XNP-01311] N75-29236
- Method for detecting pollutants --- rough chemical reactions and heat treatment
[NASA-CASE-LAR-11405-1] c45 N76-31714
- Method of producing complex aluminum alloy parts of high temper, and products thereof
[NASA-CASE-HSC-19693-1] c26 N78-24333
- HEATERS**
- Reliable electrical element heater using plural wire system and backup power sources
[NASA-CASE-NPS-21462-1] c33 N74-14935
- HEATING**
- Development of system for preheating vaporized fuel for use with internal combustion engines
[NASA-CASE-NPO-12072] c28 N72-22772
- Diffusion welding in air --- solid state welding of butt joint by fusion welding, surface cleaning, and heating
[NASA-CASE-LEW-11387-1] c37 N74-18128
- HEATING EQUIPMENT**
- Using heat control unit to preheat circulating fluid
[NASA-CASE-XNP-04237] c33 N71-16278
- Electric arc heater with supersonic nozzle and fixed arc length for use in high temperature wind tunnels
[NASA-CASE-XAC-01677] c09 N71-20816
- Radial heat flux transformer for use in heating and cooling processes
[NASA-CASE-NPO-10828] c33 N72-17948
- Self-cycling fluid heater for heating continuous fluid stream to ultrahigh temperatures to facilitate chemical reactions
[NASA-CASE-HSC-15567-1] c33 N73-16918
- Portable heatable container
[NASA-CASE-NPO-14237-1] c37 N78-24554
- HELICAL ANTENNAS**
- Weatherproof helix antenna
[NASA-CASE-XKS-08485] c07 N71-19493
- Collapsible high gain antenna which can be automatically expanded to operating state
[NASA-CASE-KSC-10392] c07 N73-26117
- HELICAL WINDINGS**
- Kine-Pak: A self-contained, electrical power generator system --- using a helical spring to rotate a rotor and generate electric current
[NASA-CASE-LAR-11551-1] c44 N78-22468
- HELICOPTER CONTROL**
- Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c08 N79-15057
- HELICOPTER WARPS**
- Variable geometry rotor system for direct control over wake vortex
[NASA-CASE-LAR-10557] c02 N72-11018
- HELICOPTERS**
- Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029
- Non-destructive method for applying and removing instrumentation on helicopter rotor blades
[NASA-CASE-LAR-11201-1] c35 N78-24515
- Constant lift rotor for a heavier than air craft
[NASA-CASE-ARC-11045-1] c05 N79-17847
- HELIUM**
- Helium refining by superfluidity
[NASA-CASE-XNP-00733] c06 N70-34946
- Apparatus and method capable of receiving large quantity of high pressure helium, removing impurities, and discharging at received pressure
[NASA-CASE-XNP-06888] c15 N71-24044
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575
- Cryostat system for temperatures on the order of 2 deg K or less
[NASA-CASE-NPO-13459-1] c31 N77-10229
- Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode
[NASA-CASE-GSC-12168-1] c31 N79-17029
- HELIUM HYDROGEN ATMOSPHERES**
- Method and means for helium/hydrogen ratio measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c35 N79-12416
- HELIUM IONS**
- Charge transfer reaction laser with preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402
- HELIUM ISOTOPES**
- Low cost cryostat
[NASA-CASE-NPO-14513-1] c31 N79-20283
- HELIUM-NEON LASERS**
- Design and development of multichannel laser remote control system using modulated helium-neon laser as transmitter and light collector as receiving antenna
[NASA-CASE-LAR-10311-1] c16 N73-16536
- HELMETS**
- Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XHS-04935] c05 N71-11190
- Electrode attached to helmets for detecting low level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193
- Venting device for pressurized space suit helmet to eliminate vomit expelled by crewmen
[NASA-CASE-XHS-09652-1] c05 N71-26333
- Helmet latching and attaching ring
[NASA-CASE-XHS-04670] c54 N78-17678
- Protective garment ventilation system
[NASA-CASE-XHS-04928] c54 N78-17679
- Helmet feedport
[NASA-CASE-XHS-09653] c54 N78-17680
- Emergency space-suit helmet
[NASA-CASE-HSC-10954-1] c54 N78-18761
- Emergency space-suit helmet
[NASA-CASE-XHS-04673-1] c54 N79-21766
- HENISPHERICAL SHELLS**
- Light baffle with oblate henispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604

HERMETIC SEALS

SUBJECT INDEX

- HERMETIC SEALS**
 Piston in bore cutter for severing parachute control lines and sealing cable hole to prevent water leakage into load
 [NASA-CASE-XMS-04072] c15 N70-42017
 Hermetically sealed explosive release mechanism for actuator device
 [NASA-CASE-IGS-00824] c15 N71-16078
 Sealing apparatus for joining two pieces of frangible materials
 [NASA-CASE-XLA-01494] c15 N71-24164
 Method for locating leaks in hermetically sealed containers
 [NASA-CASE-ERC-10045] c15 N71-24910
 Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
 [NASA-CASE-MSC-10959] c15 N71-26243
 Method of forming ceramic to metal seals impervious to gaseous and liquid mercury at high temperature
 [NASA-CASE-XNP-01263-2] c15 N71-26312
 Pressure seals suitable for use in environmental test chambers
 [NASA-CASE-NPO-10796] c15 N71-27068
 Hermetic sealing device for ends of tubular bodies during materials testing operations
 [NASA-CASE-NPO-10431] c15 N71-29132
 Hermetically sealed elbow actuator for use in severe environments
 [NASA-CASE-MFS-14710] c09 N72-22195
 Heat transfer device
 [NASA-CASE-NPO-11120-1] c34 N74-18552
 Device for tensioning test specimens within an hermetically sealed chamber
 [NASA-CASE-MFS-23281-1] c35 N77-22450
 Cooling system for removing metabolic heat from an hermetically sealed spacesuit
 [NASA-CASE-ARC-11059-1] c54 N78-32721
- HEXAGONS**
 Hexagon solar power panel
 [NASA-CASE-NPO-12148-1] c44 N78-27515
- HEXAMETHYLENETETRAAMINE**
 Structural wood panels with improved fire resistance --- using prepolymers and hexamethylenetetramine
 [NASA-CASE-ARC-11174-1] c24 N78-28178
- HEXOKINASE**
 Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions
 [NASA-CASE-IGS-05533] c04 N69-27487
- HIGH ACCELERATION**
 Astronaut restraint suit for high acceleration protection
 [NASA-CASE-XAC-00405] c05 N70-41819
- HIGH ALTITUDE**
 Compact bellows spirometer for high speed and high altitude space travel
 [NASA-CASE-XAR-01547] c05 N69-21473
- HIGH ALTITUDE ENVIRONMENTS**
 Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
 [NASA-CASE-XLA-04126] c28 N71-26779
- HIGH ASPECT RATIO**
 Aerospace configuration with low and high aspect ratio variability for high and low speed flight
 [NASA-CASE-XLA-00142] c02 N70-33286
 Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
 [NASA-CASE-XLA-00806] c02 N70-34858
- HIGH FREQUENCIES**
 Apparatus for ballasting high frequency transistors
 [NASA-CASE-XGS-05003] c09 N69-24318
 Holder for high frequency crystal resonators
 [NASA-CASE-XNP-03637] c15 N71-21311
 Multiple varactor for generating high frequencies with high power and high conversion efficiency
 [NASA-CASE-XNP-04958-1] c10 N71-26414
- HIGH GAIN**
 Filtering technique based on high-frequency plant modeling for high-gain control
- [NASA-CASE-LAR-12215-1] c08 N78-17070
- HIGH PASS FILTERS**
 Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
 [NASA-CASE-IGS-01418] c09 N71-23573
- HIGH POLYMERS**
 Shock and vibration damping device using temperature sensitive solid amorphous polymers
 [NASA-CASE-XAC-11225] c14 N69-27486
- HIGH PRESSURE**
 High-temperature, high-pressure spherical segment valve
 [NASA-CASE-XAC-00074] c15 N70-34817
 High pressure four-way valve with O ring adapted to pass across inlet port
 [NASA-CASE-XNP-00214] c15 N70-36908
 Compact high pressure filter for rocket fuel lines
 [NASA-CASE-XNP-00732] c28 N70-41447
 Antiflutter check valve for use with high pressure fluid flow
 [NASA-CASE-XNP-01152] c15 N70-41811
 High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
 [NASA-CASE-XLE-02998] c14 N70-42074
 Structural design of high pressure regulator valve
 [NASA-CASE-XNP-00710] c15 N71-10778
 Hypersonic test facility for studying ablation in models under high pressure and high temperature
 [NASA-CASE-XLA-00378] c11 N71-15925
 Development and characteristics of high pressure control valve
 [NASA-CASE-MSC-11010] c15 N71-19485
 Valve seat with resilient support ring for venting valves subjected to high pressure sealing loads
 [NASA-CASE-XKS-02582] c15 N71-21234
 Apparatus and method capable of receiving large quantity of high pressure helium, removing impurities, and discharging at received pressure
 [NASA-CASE-XNP-06888] c15 N71-24044
 Liquid aerosol dispenser with explosively driven piston to compress light gas to extremely high pressure
 [NASA-CASE-MFS-20829] c12 N72-21310
 Gas compression apparatus
 [NASA-CASE-MSC-14757-1] c35 N78-10428
 Purging means and method for Xenon arc lamps
 [NASA-CASE-NPO-11978] c31 N78-17238
- HIGH RESOLUTION**
 High resolution radar transmitting system for transmitting optical pulses to targets
 [NASA-CASE-NPO-11426] c07 N73-26119
 High resolution Fourier interferometer-spectrophotopolarimeter
 [NASA-CASE-NPO-13604-1] c35 N76-31490
- HIGH SPEED**
 Compact bellows spirometer for high speed and high altitude space travel
 [NASA-CASE-XAR-01547] c05 N69-21473
 High speed low level voltage commutating switch
 [NASA-CASE-XAC-00060] c09 N70-39915
 Impact testing machine for imparting large impact forces on high velocity packages
 [NASA-CASE-XNP-04817] c14 N71-23225
 Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
 [NASA-CASE-XPR-02007] c12 N71-24692
 Method for reducing mass of ball bearings for long life operation at high speed
 [NASA-CASE-LPW-10856-1] c15 N72-22490
 Two stage light gas-plasma projectile accelerator
 [NASA-CASE-MFS-22287-1] c75 N76-14931
 Selective data segment monitoring system --- using shift registers
 [NASA-CASE-ARC-10899-1] c60 N77-19760
- HIGH SPEED CAMERAS**
 Electrically operated rotary shutter for television camera aboard spacecraft
 [NASA-CASE-XNP-00637] c14 N70-40273
- HIGH STRENGTH**
 Method for making fiber composites with high strength at high temperatures
 [NASA-CASE-LEN-10424-2-2] c18 N72-25539
- HIGH STRENGTH ALLOYS**
 High strength, corrosion resistant cobalt-based alloys for aerospace structures

SUBJECT INDEX

HIGH VOLTAGES

[NASA-CASE-XLE-00726] c17 N71-15644
High strength aluminum casting alloy for cryogenic applications in aerospace engineering
[NASA-CASE-XMP-02786] c17 N71-20743
Production of high strength refractory compounds and microconstituents into refractory metal matrix
[NASA-CASE-XLE-03940] c18 N71-26153
High strength nickel based alloys
[NASA-CASE-LEW-10874-1] c17 N72-22535
Cobalt-tungsten alloys with superior strength at elevated temperatures
[NASA-CASE-XLE-10436-1] c17 N73-32415
High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-3] c26 N79-19145
HIGH STRENGTH STEELS
Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions --- by adding potassium hydroxide to hydrazine
[NASA-CASE-NPO-12122-1] c24 N76-14203
High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-1] c26 N77-24254
HIGH TEMPERATURE
High temperature source of thermal radiation
[NASA-CASE-XLE-00490] c33 N70-34545
Thermionic diode switch for use in high temperature region to chop current from dc source
[NASA-CASE-NPO-10404] c03 N71-12255
Hypersonic test facility for studying ablation in models under high pressure and high temperature
[NASA-CASE-XLA-00378] c11 N71-15925
Process for fiberizing ceramic materials with high fusion temperatures and tensile strength
[NASA-CASE-XMP-00597] c18 N71-23088
Induction heating of metallurgical specimens to high temperatures in coil furnace
[NASA-CASE-XLE-04026] c14 N71-23267
Method of forming ceramic to metal seals impervious to gaseous and liquid mercury at high temperature
[NASA-CASE-XNP-01263-2] c15 N71-26312
Method for making fiber composites with high strength at high temperatures
[NASA-CASE-LEW-10424-2-2] c18 N72-25539
Superalloys from prealloyed powders at high temperatures
[NASA-CASE-LEW-10805-1] c15 N73-13465
High temperature beryllium oxide capacitor
[NASA-CASE-LEW-11938-1] c33 N76-15373
Low to high temperature energy conversion system
[NASA-CASE-NPO-13510-1] c44 N77-32581
High-temperature microphone system
[NASA-CASE-LAR-12375-1] c32 N78-23275
Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12174-2] c35 N79-14346
HIGH TEMPERATURE AIR
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds
[NASA-CASE-LAR-10612-1] c12 N73-28144
HIGH TEMPERATURE ENVIRONMENTS
High speed infrared furnace
[NASA-CASE-XLE-10466] c17 N69-25147
Nickel alloy series for aerospace structures subjected to high temperatures
[NASA-CASE-XLE-00283] c17 N70-36616
Water cooled gage for strain measurements in high temperature environments
[NASA-CASE-XNP-09205] c14 N71-17657
Trielectrode capacitive pressure transducer
[NASA-CASE-ARC-10711-2] c33 N76-21390
Integrated structure vacuum tube
[NASA-CASE-ARC-10445-1] c31 N76-31365
HIGH TEMPERATURE FLUIDS
Self-cycling fluid heater for heating continuous fluid stream to ultrahigh temperatures to facilitate chemical reactions
[NASA-CASE-HSC-15567-1] c33 N73-16918
HIGH TEMPERATURE GASES
Multiple wavelength radiation measuring instrument for determining hot body or gas temperature
[NASA-CASE-XLE-00011] c14 N70-41946
Ablative resins used for retarding regression in ablative material

[NASA-CASE-XLE-05913] c33 N71-14032
Transient heat transfer gage for measuring total radiant intensity from far ultraviolet and ionized high temperature gases
[NASA-CASE-XNP-09802] c33 N71-15641
Generation of high temperature, high mass flow, and high Reynolds number air at hypersonic speeds
[NASA-CASE-LAR-10578-1] c12 N73-25262
Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477
Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431
HIGH TEMPERATURE LUBRICANTS
Production of barium fluoride-calcium fluoride composite lubricant for bearings or seals
[NASA-CASE-XLE-08511-2] c18 N71-16105
Self lubricating fluoride-metal composite materials for outer space applications
[NASA-CASE-XLE-08511] c18 N71-23710
Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications
[NASA-CASE-LEW-11930-4] c24 N79-17916
HIGH TEMPERATURE FLASHES
Apparatus for producing highly conductive, high temperature electron plasma with homogenous temperature and pressure distribution
[NASA-CASE-XLA-00147] c25 N70-34661
HIGH TEMPERATURE PROPPELLANTS
Development of system for delivering vaporized mercury to electron bombardment ion engine
[NASA-CASE-NPO-10737] c28 N72-11709
HIGH TEMPERATURE RESEARCH
Gas cooled high temperature thermocouple
[NASA-CASE-XLE-09475-1] c33 N71-15568
Fatigue testing apparatus with light shield and infrared reflector for high temperature evaluation of loaded sheet samples
[NASA-CASE-XLA-01782] c14 N71-26136
High temperature oxidation resistant cermet compositions
[NASA-CASE-NPO-13666-1] c27 N77-13217
HIGH TEMPERATURE TESTS
High-temperature, high-pressure spherical segment valve
[NASA-CASE-XAC-00074] c15 N70-34817
Test apparatus for determining mechanical properties of refractory materials at high temperatures in vacuum or inert atmospheres
[NASA-CASE-XLE-00335] c14 N70-35368
Apparatus for testing metallic and nonmetallic beams or rods by bending at high temperatures in vacuum or inert atmosphere
[NASA-CASE-XLE-01300] c15 N70-41993
HIGH VACUUM
Epoxy resin sealing device for electrochemical cells in high vacuum environments
[NASA-CASE-XGS-02630] c03 N71-22974
Device for high vacuum film deposition with electromagnetic ion steering
[NASA-CASE-NPO-10331] c09 N71-26701
Absolute pressure measuring device for measuring gas density level in high vacuum range
[NASA-CASE-LAR-10000] c14 N73-30394
Plasma cleaning device --- designed for high vacuum environments
[NASA-CASE-NFS-22906-1] c75 N78-27913
HIGH VACUUM ORBITAL SIMULATOR
Space environmental work simulator with portions of space suit mounted to vacuum chamber wall
[NASA-CASE-XNP-07488] c11 N71-18773
HIGH VOLTAGES
Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542
High voltage cable for use in high intensity ionizing radiation fields
[NASA-CASE-XNP-00738] c09 N70-38201
High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-HSC-12178-1] c09 N71-13518
High voltage transistor circuit
[NASA-CASE-XNP-06937] c09 N71-19516
High voltage divider system for attenuating high voltages to convenient levels suitable for introduction to measuring circuits

HIGHWAYS

SUBJECT INDEX

[NASA-CASE-XLR-02008] c09 N71-21583
 High voltage distributor
 [NASA-CASE-GSC-11849-1] c33 N76-16332
 Sustained arc ignition system
 [NASA-CASE-LEW-12444-1] c33 N77-28385

HIGHWAYS
 Traffic survey system --- using optical scanners
 [NASA-CASE-MFS-22631-1] c66 N76-19888

HISTOGRAMS
 System for storing histogram data in optimum
 number of elements
 [NASA-CASE-INP-09785] c08 N69-21928

HOLDERS
 Water cooled contactors for holding rotating
 carbon arc anode
 [NASA-CASE-XMS-03700] c15 N69-24266
 Quick disconnect latch and handle combination
 for mounting articles on walls or supporting
 bases in spacecraft under zero gravity
 conditions
 [NASA-CASE-MFS-11132] c15 N71-17649
 Holder for high frequency crystal resonators
 [NASA-CASE-INP-03637] c15 N71-21311
 Design and construction of mechanical probe for
 determining if object is properly secured
 [NASA-CASE-MFS-20760] c14 N72-33377
 Fifth wheel
 [NASA-CASE-PRC-10081-1] c37 N77-14477
 Combined docking and grasping device
 [NASA-CASE-MFS-23088-1] c37 N77-23483
 Method and apparatus for holding two separate
 metal pieces together for welding
 [NASA-CASE-GSC-12318-1] c37 N78-23434
 Plural output optometric sample cell and
 analysis system
 [NASA-CASE-NPO-10233-1] c74 N78-33913

HOLE DISTRIBUTION (MECHANICS)
 Thermocouple installation
 [NASA-CASE-NPO-13540-1] c35 N77-14409

HOLE MOBILITY
 Hole mobility of deposited semiconductor films
 in vacuum utilizing thermal gradient
 [NASA-CASE-XKS-04614] c15 N69-21460

HOLLOW
 Dual membrane hollow fiber fuel cell and method
 of operating same
 [NASA-CASE-NPO-13732-1] c44 N79-10513

HOLLOW CATHODES
 Hydrogen hollow cathode ion source
 [NASA-CASE-LEW-12940-1] c75 N79-10894

HOLOGRAPHY
 Development of focused image holography with
 extended sources
 [NASA-CASE-ERC-10019] c16 N71-15551
 Hybrid holographic system using reference,
 transmitted, and reflected beams simultaneously
 [NASA-CASE-MFS-20074] c16 N71-15565
 Recording and reconstructing focused image
 holograms
 [NASA-CASE-ERC-10017] c16 N71-15567
 Method and means for recording and
 reconstructing holograms without use of
 reference beam
 [NASA-CASE-ERC-10020] c16 N71-26154
 Nondestructive stress testing of solder joints
 on printed circuit boards by holographic
 techniques
 [NASA-CASE-MFS-20687] c16 N72-11415
 Multiple image storing system for obtaining
 holographic record on film of high speed
 projectile
 [NASA-CASE-MFS-20596] c14 N72-17324
 Thin film analyzer utilizing holographic
 techniques
 [NASA-CASE-MFS-20823-1] c16 N73-30476
 Method and apparatus for checking the stability
 of a setup for making reflection type holograms
 [NASA-CASE-MFS-21455-1] c35 N74-15146
 Real time moving scene holographic camera system
 [NASA-CASE-MFS-21087-1] c35 N74-17153
 Holography utilizing surface plasmon resonances
 [NASA-CASE-MFS-22040-1] c35 N74-26946
 Holographic system for nondestructive testing
 [NASA-CASE-MFS-21704-1] c35 N75-25124
 Real time, large volume, moving scene
 holographic camera system
 [NASA-CASE-MFS-22537-1] c35 N75-27328
 Holographic motion picture camera with Doppler
 shift compensation

[NASA-CASE-MFS-22517-1] c35 N76-18402
 Optical process for producing classification
 maps from multispectral data
 [NASA-CASE-MSC-14472-1] c43 N77-10584

HOBING DEVICES
 Location identification system with ground based
 transmitter and aircraft borne receiver/decoder
 [NASA-CASE-ERC-10324] c07 N72-25173

HONEYCOMB CORES
 Technique for making foldable, inflatable,
 plastic honeycomb core panels for use in
 building and bridge structures, light and
 radio wave reflectors, and spacecraft
 [NASA-CASE-XLA-03492] c15 N71-22713
 Heat treatment and tooling for forming shapes
 from thermosetting honeycomb core sheets
 [NASA-CASE-NPO-11036] c15 N72-24522
 Honeycomb core structures of minimum surface
 tubule sections
 [NASA-CASE-ERC-10363] c18 N72-25541

HONEYCOMB STRUCTURES
 Filling honeycomb matrix with deaerated paste
 filler
 [NASA-CASE-XMS-01108] c15 N69-24322
 Inflatable honeycomb panel element for
 lightweight structures usable in space
 stations and other construction
 [NASA-CASE-XLA-00204] c32 N70-36536
 Fluid flow control valve for regulating fluids
 in molecular quantities
 [NASA-CASE-XLE-00703] c15 N71-15967
 Method and apparatus for fabrication of heat
 insulating and ablative reentry structure
 [NASA-CASE-XMS-02009] c33 N71-20834
 Method for honeycomb panel bonding by
 thermosetting film adhesive with electrical
 heat means
 [NASA-CASE-INP-01402] c18 N71-21651
 Development of thermal insulation material for
 insulating liquid hydrogen tanks in spacecraft
 [NASA-CASE-INP-05046] c33 N71-28892
 Honeycomb panels of minimal surface, periodic
 tubule layers
 [NASA-CASE-ERC-10364] c18 N72-25540
 Development of process for bonding resinous body
 in cavities of honeycomb structures
 [NASA-CASE-MSC-12357] c15 N73-12489
 Insert facing tool --- manually operated cutting
 tool for forming studs in honeycomb material
 [NASA-CASE-MFS-21485-1] c37 N74-25968
 Vacuum pressure molding technique
 [NASA-CASE-LAR-10073-1] c37 N76-24575
 Honeycomb-laminate composite structure
 [NASA-CASE-ARC-10913-1] c24 N78-15180
 Method of making a composite sandwich lattice
 structure
 [NASA-CASE-LAR-11898-2] c24 N78-17149
 Low density bismaleimide-carbon microballoon
 composites
 [NASA-CASE-ARC-11040-1] c24 N79-16915

HOPPERS
 Design and development of device to prevent
 clogging in hoppers containing particulate
 materials
 [NASA-CASE-LAR-10961-1] c15 N73-12496

HORIZON SCANNERS
 Oscillatory electromagnetic mirror drive system
 for horizon scanners
 [NASA-CASE-XLA-03724] c14 N69-27461
 Multi-lobar scan horizon sensor
 [NASA-CASE-IGS-00809] c21 N70-35427
 Attitude orientation control of spin stabilized
 final stage space vehicles, using horizon
 scanners
 [NASA-CASE-XLA-00281] c21 N70-36943
 Clamped amplifier circuit for horizon scanner
 enabling amplification and accurate
 measurement of specified parameters
 [NASA-CASE-IGS-01784] c10 N71-20782
 Horizon sensor design with digital sampling of
 spaced radiation-compensated thermopile
 infrared detectors
 [NASA-CASE-INP-06957] c14 N71-21088
 Method and equipment for locating earth infrared
 horizon from space, independent of season and
 latitude
 [NASA-CASE-LAR-10726-1] c14 N73-20475

HORIZONTAL SPACECRAFT LANDING
 Delta winged, manned reentry vehicle capable of

SUBJECT INDEX

HUMIDITY

- horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986
- HORIZONTAL TAIL SURFACES**
Development and characteristics of translating horizontal tail assembly for supersonic aircraft
[NASA-CASE-XLA-08801-1] c02 N71-11043
- HORN ANTENNAS**
Device for improving efficiency of parabolic horn antenna system for linearly polarized signals
[NASA-CASE-INP-00611] c09 N70-35219
Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-INP-00540] c09 N70-35382
Characteristics of antenna horn feeds consisting of central horn with overlapping peripheral horns
[NASA-CASE-GSC-10452] c07 N71-12396
Multiple mode horn antenna with radiation pattern of equal beamwidths and suppressed sidelobes
[NASA-CASE-INP-01057] c07 N71-15907
Multipurpose microwave antenna, employing dish reflector with plural coaxial horn feeds
[NASA-CASE-NPO-11264] c07 N72-25174
Horn antenna having V-shaped corrugated slots
[NASA-CASE-LAR-11112-1] c32 N76-15330
Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365
Collapsible corrugated horn antenna
[NASA-CASE-LAR-11745-1] c32 N77-24339
Reflex feed system for dual frequency antenna with frequency cutoff means
[NASA-CASE-NPO-14022-1] c32 N78-31321
Multifrequency broadband horn antenna
[NASA-CASE-NPO-14588-1] c32 N79-17067
Dual band combiner for horn antenna
[NASA-CASE-NPO-14519-1] c32 N79-17068
- ROT CATHODES**
Improved cathode containing barium carbonate block and heated tungsten screen for electron bombardment ion thruster
[NASA-CASE-XLB-07087] c06 N69-39889
- ROT PRESSING**
Cermets for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LFW-10219-1] c18 N71-28729
- ROT WORKING**
Hot forming of plastic sheets
[NASA-CASE-XMS-05516] c15 N71-17803
- ROT-WIRE ANEMOMETERS**
Metallic hot wire anemometer --- for high speed wind tunnel tests
[NASA-CASE-ARC-10911-1] c35 N77-20400
Method for making a hot wire anemometer and product thereof
[NASA-CASE-ARC-10900-1] c35 N77-24454
- ROT-WIRE FLOWMETERS**
Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802
Flow separation detector
[NASA-CASE-ARC-11046-1] c35 N78-14364
- HOUSINGS**
Sealed housing for protecting electronic equipment against electromagnetic interference
[NASA-CASE-MSC-12168-1] c09 N71-18600
Open type urine receptacle with tubular housing
[NASA-CASE-MSC-12324-1] c05 N72-22093
Readily assembled universal environment housing for electronic equipment
[NASA-CASE-KSC-10031] c15 N72-22486
Gas flow control device, including housing and input port
[NASA-CASE-NPO-11479] c15 N73-13462
Cryogenic gyroscope housing --- with annular disks for gas spin-up
[NASA-CASE-MFS-21136-1] c35 N74-18323
Heat transfer device
[NASA-CASE-NPO-11120-1] c34 N74-18552
Deformable bearing seat
[NASA-CASE-LFW-12527-1] c37 N77-32500
- HOVERING**
Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MSC-12111-1] c02 N71-11039
- HUGENIOT EQUATION OF STATE**
Determining particle density using known material Hugoniot curves
[NASA-CASE-LAR-11059-1] c76 N75-12810
- HULLS (STRUCTURES)**
Efficient operation of improved hydrofoil design
[NASA-CASE-XLA-00229] c12 N70-33305
- HUMAN BEINGS**
Method and apparatus for applying compressional forces to skeletal structure of subject to simulate force during ambulatory conditions
[NASA-CASE-ARC-10100-1] c05 N71-24738
Automatic braking device for rapidly transferring humans or materials from elevated location
[NASA-CASE-IKS-07814] c15 N71-27067
- HUMAN BODY**
Apparatus for measuring human body mass in zero or reduced gravity environment
[NASA-CASE-XMS-03371] c05 N70-42000
Electromedical garment, applying vectorcardiologic type electrodes to human torsos for data recording during physical activity
[NASA-CASE-XPR-10856] c05 N71-11189
Thermoregulating with cooling flow pipe network for humans
[NASA-CASE-XMS-10269] c05 N71-24147
Tilting table for testing human body in variety of positions while exercising on ergometer or other biomedical devices
[NASA-CASE-MFS-21010-1] c05 N73-30078
Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737
Sweat collection capsule
[NASA-CASE-ARC-11031-1] c54 N78-22720
- HUMAN FACTORS ENGINEERING**
Shock absorbing couch for body support under high acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152
Harness assembly adapted to support man on ground based apparatus which simulates weightlessness
[NASA-CASE-MFS-14671] c05 N71-12341
Multiple circuit switch apparatus requiring minimum hand and eye movement by operator
[NASA-CASE-XAC-03777] c10 N71-15909
Remote control device operated by movement of finger tips for manual control of spacecraft attitude
[NASA-CASE-XAC-02405] c09 N71-16089
Design and development of flexible tunnel for use by spacecrews in performing extravehicular activities
[NASA-CASE-MSC-12243-1] c05 N71-24728
Development of apparatus and method for quantitatively measuring brain activity as automatic indication of sleep state and level of consciousness
[NASA-CASE-MSC-13282-1] c05 N71-24729
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694
Spacesuit mobility joints
[NASA-CASE-ARC-11058-1] c54 N78-31735
Spacesuit torso closure
[NASA-CASE-ARC-11100-1] c54 N78-31736
- HUMAN PERFORMANCE**
Color perception tester for testing color code perceptiveness of individuals
[NASA-CASE-KSC-10278] c05 N72-16015
- HUMAN REACTIONS**
Reaction tester for testing reaction to light stimuli
[NASA-CASE-MSC-13604-1] c05 N73-13114
- HUMAN WASTES**
Reduced gravity fecal collector seat and urinal
[NASA-CASE-MFS-22102-1] c54 N74-20725
Automatic biowaste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804
- HUMIDITY**
Passive intrusion detection system
[NASA-CASE-NPO-13804-1] c35 N77-19390
Apparatus for supplying conditioned air at a substantially constant temperature and humidity
[NASA-CASE-GSC-12191-1] c54 N79-19688

HYBRID COMPUTERS

SUBJECT INDEX

HYBRID COMPUTERS

Adaptive voting computer system
[NASA-CASE-MSC-13932-1] c62 N74-14920

HYBRID PROPELLANTS
Liner for hybrid solid propellants to bind
propellant to rocket motor case
[NASA-CASE-XNP-09744] c27 N71-163

HYDRAULIC CONTROL
Shear modulated fluid amplifier of high pressure
hydraulic vortex amplifier type
[NASA-CASE-MPS-10412] c12 N71-17578
Throttle valve for regulating fluid flow volume
[NASA-CASE-XNP-09698] c15 N71-18580
Fluidic-thermochromic display device
[NASA-CASE-ERC-10031] c12 N71-18603
Development and characteristics of variable
displacement fluid pump for transforming
hydraulic pressures
[NASA-CASE-MPS-20830] c15 N71-30028
Hydraulic drain means for servo-systems
[NASA-CASE-NPO-10316-1] c37 N77-22479

HYDRAULIC EQUIPMENT
Hydraulic support equipment for full scale
dynamic testing of large rocket vehicle under
free flight conditions
[NASA-CASE-XNP-01772] c11 N70-41677
Hydraulic support apparatus for dynamic testing
of space vehicles under near-free flight
conditions
[NASA-CASE-XNP-03248] c11 N71-10604
Hydraulic drive mechanism for leveling isolation
platforms
[NASA-CASE-XNS-03252] c15 N71-10658
Antibacklash circuit for hydraulic drive system
[NASA-CASE-XNP-01020] c03 N71-12260
Hydraulic clamping of sheet stock specimens
[NASA-CASE-XLA-05100] c15 N71-17696
Design and development of double acting shock
absorber for spacecraft docking operations
[NASA-CASE-XNS-03722] c15 N71-21530
Hydraulic apparatus for casting and molding of
liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975
System to control speed of hydraulically movable
members by limiting energy applied to
actuators with hydraulic servo loop
[NASA-CASE-ABC-10131-1] c15 N71-27754
Development of aircraft control system with high
performance electrically controlled and
mechanically operated hydraulic valves for
precise flight operation
[NASA-CASE-XAC-00048] c02 N71-29128
Development and characteristics of variable
displacement fluid pump for transforming
hydraulic pressures
[NASA-CASE-MPS-20830] c15 N71-30028
Design and characteristics of mechanically
extended and telescoping boom on crane assembly
[NASA-CASE-NPO-11118] c03 N72-25021
Design and development of device to prevent
geysering during convective circulation of
cryogenic fluids
[NASA-CASE-KSC-10615] c15 N73-12486
Redundant hydraulic control system for actuators
with three main valve combination
[NASA-CASE-MPS-20944] c15 N73-13466
Rocket propellant injector with porous faceplate
for rocket engine combustion chamber
[NASA-CASE-LBW-11071-1] c27 N73-27695
Servo valve
[NASA-CASE-LAB-11643-1] c37 N75-13268
Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050
Ultrasonically bonded valve assembly
[NASA-CASE-NPO-13360-1] c37 N75-25185
Filter regeneration systems --- a system for
regenerating a system filter in a fluid flow
line
[NASA-CASE-MSC-14273-1] c34 N75-33342
Quick disconnect filter coupling
[NASA-CASE-MPS-22323-1] c37 N76-14463
Actuator device for artificial leg
[NASA-CASE-MPS-23225-1] c52 N77-14735
Free-piston regenerative hot gas hydraulic engine
[NASA-CASE-LBW-12274-1] c37 N79-10426

HYDRAULIC FLUIDS
Miniature hydraulic actuator --- for control
surfaces on airfoils
[NASA-CASE-LAB-11522-1] c34 N74-34881

HYDRAZINE ENGINES

Reciprocating engines
[NASA-CASE-MSC-16239-1] c37 N78-11399

HYDRAZINE NITROFOBS
Solid propellant containing hydrazinium
nitroformate oxidizer and polymeric
hydrocarbon binder
[NASA-CASE-NPO-12015] c27 N73-16764

HYDRAZINES
Catalyst bed ignition system for hydrazine
propellants
[NASA-CASE-XNP-00876] c28 N76-41311
Hydrazine monoperfluoro alkanoate solder flux
leaving corrosion resistant coating, for
metals such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688
Rubber composition for expulsion bladders and
diaphragms for use with hydrazine
[NASA-CASE-NPO-11433] c18 N71-31140
Prevention of hydrogen embrittlement of high
strength steel by hydrazine compositions ---
by adding potassium hydroxide to hydrazine
[NASA-CASE-NPO-12122-1] c24 N76-14203

HYDROCARBON COMBUSTION
In-situ laser retorting of oil shale
[NASA-CASE-LBW-12217-1] c43 N78-14452

HYDROCARBON FUELS
Apparatus for producing hydrocarbon slurry
containing small particles of magnesium for
use as jet aircraft fuel
[NASA-CASE-XLE-00010] c15 N70-33382
Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700
Hydrogen rich gas generator
[NASA-CASE-NPO-13464-2] c44 N76-29704

HYDROCARBONS
Solid propellant containing hydrazinium
nitroformate oxidizer and polymeric
hydrocarbon binder
[NASA-CASE-NPO-12015] c27 N73-16764
Hydrogen rich gas generator
[NASA-CASE-NPO-13342-1] c37 N76-16446
Pyrolysis system and process --- recovering
energy from solid wastes containing hydrocarbons
[NASA-CASE-MSC-12669-1] c44 N76-16621
Combustion engine --- for air pollution control
[NASA-CASE-NPO-13671-1] c37 N77-31497

HYDROCHLORIC ACID
Indicator providing continuous indication of the
presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742

HYDROFOILS
Efficient operation of improved hydrofoil design
[NASA-CASE-XLA-00229] c12 N70-33305

HYDROFORMING
Cold metal hydroforming techniques using epoxy
molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346

HYDROGEN
Method and transducer device for detecting
presence of hydrogen gas
[NASA-CASE-XNP-03873] c06 N69-39733
Preventing pressure buildup in electrochemical
cells by reacting palladium oxide with evolved
hydrogen
[NASA-CASE-IGS-01419] c03 N70-41864
Development of pulse-activated polarographic
hydrogen detector
[NASA-CASE-XNP-06531] c14 N71-17575
Development of device for detecting hydrogen in
ambient environments
[NASA-CASE-MPS-11537] c14 N71-20442
Gas chromatographic method for analyzing
hydrogen deuterium mixtures
[NASA-CASE-NPO-11322] c06 N72-25146
Hydrogen fire blink detector for high altitude
rocket or ground installation
[NASA-CASE-MPS-15063] c14 N72-25412
Separation of dissolved hydrogen from water and
coating with palladium black
[NASA-CASE-MSC-13335-1] c06 N72-31140
Atomic hydrogen maser with bulb temperature
control by output frequency difference signal
for wall shift elimination
[NASA-CASE-HQH-10654-1] c16 N73-13489
Method of producing a storage bulb for an atomic
hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029

SUBJECT INDEX

HYSTERESIS

- Atomic standard with variable storage volume
[NASA-CASE-GSC-11895-1] c35 N76-15436
- Hydrogen rich gas generator
[NASA-CASE-NPO-13342-1] c37 N76-16446
- Hydrogen-bromine secondary battery
[NASA-CASE-NPO-13237-1] c44 N76-18641
- Hydrogen-rich gas generator
[NASA-CASE-NPO-13464-1] c44 N76-18642
- Solar hydrogen generator
[NASA-CASE-LAR-11361-1] c44 N77-22607
- Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580
- HYDROGEN ATOMS**
- Atomic hydrogen storage method and apparatus ---
cryotrapping and magnetic field strength
[NASA-CASE-LEW-12081-2] c72 N78-19907
- Atomic hydrogen storage method and apparatus
[NASA-CASE-LEW-12081-1] c28 N78-24365
- Atomic hydrogen storage method and apparatus
[NASA-CASE-LEW-12081-3] c44 N79-18455
- HYDROGEN EMBRITTLEMENT**
- Prevention of hydrogen embrittlement of high
strength steel by hydrazine compositions ---
by adding potassium hydroxide to hydrazine
[NASA-CASE-NPO-12122-1] c24 N76-14203
- HYDROGEN ENGINES**
- Hydrogen-fueled engine
[NASA-CASE-NPO-13763-1] c44 N78-33526
- HYDROGEN FUELS**
- Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700
- Hydrogen rich gas generator
[NASA-CASE-NPO-13464-2] c44 N76-29704
- Hydrogen-rich gas generator
[NASA-CASE-NPO-13560-1] c44 N77-10636
- HYDROGEN IONS**
- Hydrogen hollow cathode ion source
[NASA-CASE-LEW-12940-1] c75 N79-10894
- HYDROGEN OXYGEN FUEL CELLS**
- Electrolytically regenerative hydrogen-oxygen
fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052
- Water electrolysis rocket engine with self-
regulating stoichiometric fuel mixing regulator
[NASA-CASE-XGS-08729] c28 N71-14044
- HYDROGEN PEROXIDE**
- Unit for generating thrust from catalytic
decomposition of hydrogen peroxide, for high
altitude aircraft or spacecraft reaction control
[NASA-CASE-INS-00583] c28 N70-38504
- HYDROGENATION**
- Producing high purity silicon carbide on carbon
base by hydrogen reduction of silicon
tetrachloride
[NASA-CASE-XLA-00158] c26 N70-36805
- Compact hydrogenator
[NASA-CASE-NPO-11682-1] c35 N74-15127
- HYDROLOGY**
- Radar target remotely sensing hydrological
phenomena
[NASA-CASE-LAR-12344-1] c43 N78-33511
- HYDROSTATIC PRESSURE**
- Hydrostatic extrusion of refractory materials
using simple press
[NASA-CASE-NPO-10811] c15 N71-34425
- HYDROSTATICS**
- Hydrostatic bearing support
[NASA-CASE-LEW-11158-1] c37 N77-28486
- HYDROXIDES**
- Method for determining presence and type of OH
in MgO
[NASA-CASE-NPO-10774] c06 N72-17095
- HYGROMETERS**
- Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N77-28470
- Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N78-25391
- HYGROSCOPICITY**
- Method of evaluating moisture barrier properties
of materials used in electronics encapsulation
[NASA-CASE-NPO-10051] c18 N71-24934
- HYPERFINE STRUCTURE**
- Process for producing dispersion strengthened
nickel with aluminum comprising metallic
matrices embedded with oxides or other
hyperfine compounds
[NASA-CASE-XLE-06969] c17 N71-24142
- HYPERGOLIC ROCKET PROPELLANTS**
- Solid propellant ignition with hypergolic fluid
injected to predetermined portions of propellant
[NASA-CASE-XLE-00207] c28 N70-33375
- Regenerative cooling system for small rocket
engine having restart capability and using
noncryogenic hypergolic propellants
[NASA-CASE-XLE-00685] c28 N70-41992
- Method for igniting solid propellant rocket
motors by injecting hypergolic fluids
[NASA-CASE-XLE-01988] c27 N71-15634
- HYPERSONIC AIRCRAFT**
- Multistage aerospace craft --- perspective
drawings of conceptual design
[NASA-CASE-XHP-02263] c05 N74-10907
- HYPERSONIC FLIGHT**
- Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168
- HYPERSONIC FLOW**
- Design of hypersonic test facility for ablation
tests and performance tests of vehicles under
conditions of high temperature and pressure
[NASA-CASE-XLA-05378] c11 N71-21475
- HYPERSONIC SPEED**
- Leading edge design for hypersonic reentry
vehicles
[NASA-CASE-XLA-00165] c31 N70-33242
- Aerospace vehicle with variable planform for
hypersonic and subsonic flight
[NASA-CASE-XLA-00805] c31 N70-38010
- Variable geometry manned orbital vehicle having
high aerodynamic efficiency over wide speed
range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674
- Supersonic or hypersonic vehicle control system
comprising elevons with hinge line sweep and
free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
- Generation of high temperature, high mass flow,
and high Reynolds number air at hypersonic
speeds
[NASA-CASE-LAR-10578-1] c12 N73-25262
- Apparatus and method for generating large mass
flow of high temperature air at hypersonic
speeds
[NASA-CASE-LAR-10612-1] c12 N73-28144
- HYPERSONIC VEHICLES**
- Carbon dioxide purge systems + prevent
condensation in spaces between cryogenic fuel
tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015
- HYPERVELOCITY GUNS**
- Method and apparatus for use in forming highly
collimated beam of microparticles with high
charge to mass ratio and injecting beam into
electrostatic accelerating tube
[NASA-CASE-XGS-06628] c24 N71-16213
- Implosion driven, light gas, hypervelocity gun
[NASA-CASE-XAC-05902] c11 N71-18578
- Collapsible piston for hypervelocity gun
[NASA-CASE-HSC-13789-1] c11 N73-32152
- Hypervelocity gun --- using both electric and
chemical energy for projectile propulsion
[NASA-CASE-XLE-03186-1] c09 N79-21084
- HYPERVELOCITY IMPACT**
- Method of and device for determining the
characteristics and flux distribution of
micrometeorites --- scanning puncture holes in
sheet material with photoelectric cell
[NASA-CASE-NPO-12127-1] c91 N74-13130
- HYPERVELOCITY PROJECTILES**
- Impact measuring technique for determining size
of hypervelocity projectiles
[NASA-CASE-LAR-10913] c14 N72-16282
- Multiple image storing system for obtaining
holographic record on film of high speed
projectile
[NASA-CASE-HFS-20596] c14 N72-17324
- HYPERVELOCITY WIND TUNNELS**
- Hypersonic test facility for studying ablation
in models under high pressure and high
temperature
[NASA-CASE-XLA-00378] c11 N71-15925
- Design of hypersonic test facility for ablation
tests and performance tests of vehicles under
conditions of high temperature and pressure
[NASA-CASE-XLA-05378] c11 N71-21475
- HYSTERESIS**
- Belleville spring assembly with elastic guides
having low hysteresis
[NASA-CASE-XNP-09452] c15 N69-27504

IGNITERS

SUBJECT INDEX

IGNITERS

- Characteristics of solid propellant rocket engine with controlled rate of thrust buildup operating in vacuum environment
[NASA-CASE-NPO-11559] c28 N73-24784
- Remote fire stack igniter --- with solenoid-controlled valve
[NASA-CASE-NPS-21675-1] c25 N74-33378
- Molded composite pyrogen igniter for rocket motors --- solid propellant ignition
[NASA-CASE-LAR-12018-1] c20 N78-24275
- Plasma igniter for internal combustion engine
[NASA-CASE-NPO-13828-1] c37 N79-11405

IGNITION

- Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
[NASA-CASE-XLA-00327] c25 N71-29184

IGNITION LIMITS

- High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-MSC-12178-1] c09 N71-13518

IGNITION SYSTEMS

- Solid propellant ignition with hypergolic fluid injected to predetermined portions of propellant
[NASA-CASE-XLE-00207] c28 N70-33375
- Ignition system for monopropellant combustion devices
[NASA-CASE-INP-00249] c28 N70-38249
- Igniter capsule for chemical ignition of liquid rocket propellants
[NASA-CASE-XLE-00323] c28 N70-38505
- Catalyst bed ignition system for hydrazine propellants
[NASA-CASE-INP-00876] c28 N70-41311
- Sustained arc ignition system
[NASA-CASE-LEW-12444-1] c33 N77-28385

IGNITION TEMPERATURE

- Test chamber for determining decomposition and autoignition of materials used in spacecraft under controlled environmental conditions
[NASA-CASE-KSC-10198] c11 N71-28629

ILLUMINATORS

- Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-INP-03844-1] c14 N71-26474
- Illumination system design for use as sunlight simulator in space environment simulators with multiple light sources reflected to single virtual source
[NASA-CASE-BQN-10781] c23 N71-30292

IMAGE CONTRAST

- Video signal enhancement of signal component representing brightness of scene element in low contrast
[NASA-CASE-NPO-10343] c07 N71-27341
- Method and apparatus for producing an image from a transparent object
[NASA-CASE-GSC-11989-1] c74 N77-28932

IMAGE CONVERTERS

- Real time liquid crystal image converter
[NASA-CASE-LAR-11206-1] c74 N74-30118
- Deep trap, laser activated image converting system
[NASA-CASE-NPO-13131-1] c36 N75-19652
- Resistive anode image converter
[NASA-CASE-BQN-10876-1] c33 N76-27473

IMAGE CORRELATORS

- Multiple pattern holographic information storage and readout system
[NASA-CASE-ERC-10151] c16 N71-29131
- Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014
- Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N79-14268

IMAGE DISSECTOR TUBES

- Apparatus for calibrating an image dissector tube
[NASA-CASE-NPS-22208-1] c33 N75-26244
- Electronic optical transfer function analyzer
[NASA-CASE-NPS-21672-1] c74 N76-19935

IMAGE ENHANCEMENT

- Electron beam scanning system for improved image definition and reduced power requirements for video signal transmission
[NASA-CASE-ERC-10552] c09 N71-12539

Physical correction filter for improving the optical quality of an image

- [NASA-CASE-HQN-10542-1] c74 N75-25706
- Method of obtaining intensified image from developed photographic films and plates
[NASA-CASE-NPS-23461-1] c35 N79-10389

IMAGE FILTERS

- Filter arrangement for controlling light intensity in motion picture camera used in optical pyrometry
[NASA-CASE-XLA-00062] c14 N70-33254
- Development and characteristics of spectroradiometer with wedge filters to eliminate adverse effect of pinholes in filters
[NASA-CASE-HQN-10683] c14 N71-34389
- Physical correction filter for improving the optical quality of an image
[NASA-CASE-HQN-10542-1] c74 N75-25706

IMAGE INTENSIFIERS

- Magnifying image intensifier
[NASA-CASE-NPS-23461-1] c74 N78-18905
- Diffraction grating configuration for X-ray and ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N78-32857
- Method of obtaining intensified image from developed photographic films and plates
[NASA-CASE-NPS-23461-1] c35 N79-10389

IMAGE PROCESSING

- Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N79-14268

IMAGE TUBES

- Image tube --- deriving electron beam replica of image
[NASA-CASE-GSC-11602-1] c33 N74-21850
- System for producing chroma signals
[NASA-CASE-MSC-14683-1] c74 N77-18893

IMAGES

- Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-INP-03844-1] c14 N71-26474
- Stereoscopic television system, including projecting pair of binocular images
[NASA-CASE-ARC-10160-1] c23 N72-27728
- System for forming a quadrifid image comprising angularly related fields of view of a three dimensional object
[NASA-CASE-NPO-14219-1] c35 N78-22348

IMAGING TECHNIQUES

- Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
[NASA-CASE-ERC-10001] c23 N71-24868
- Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects
[NASA-CASE-GSC-11133-1] c23 N72-11568
- Phototransistor imaging system with mosaic of phototransistors on semiconductor substrate
[NASA-CASE-NPS-20809] c23 N73-13660
- Computerized optical system for producing multiple images of a scene simultaneously
[NASA-CASE-MSC-12404-1] c23 N73-13661
- Optical imaging system for increasing light absorption efficiency of imaging detector
[NASA-CASE-ARC-10194-1] c23 N73-20741
- Device for displaying and recording angled views of samples to be viewed by microscope
[NASA-CASE-GSC-11690-1] c14 N73-28499
- Ritchey-Chretien telescope responsive to images located off telescope optical axis
[NASA-CASE-GSC-11487-1] c14 N73-30393
- Data storage, image tube type
[NASA-CASE-MSC-14053-1] c60 N74-12888
- Optical instruments
[NASA-CASE-MSC-14096-1] c74 N74-15095
- Electron microscope aperture system
[NASA-CASE-ARC-10448-3] c35 N77-14408
- Method and apparatus for producing an image from a transparent object
[NASA-CASE-GSC-11989-1] c74 N77-28932
- Full color hybrid display for aircraft simulators --- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083
- Time delay and integration detectors using charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262
- Chromatically corrected virtual image display --- lens design for flight simulators
[NASA-CASE-LAR-12251-1] c74 N79-14892

SUBJECT INDEX

INDIUM ALLOYS

- Multispectral imaging and analysis system ---
using charge coupled devices and linear arrays
[NASA-CASE-NPO-13691-1] c43 N79-17288
- System and method for obtaining wide screen
Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856
- Low intensity X-ray and gamma-ray imaging device
--- fiber optics
[NASA-CASE-GSC-12263-1] c74 N79-20857
- IMIDES**
Synthesis and chemical properties of
imidazopyrrolone/imide copolymers
[NASA-CASE-XLA-08802] c06 N71-11238
- Molding process for imidazopyrrolone polymers
[NASA-CASE-LAR-10547-1] c31 N74-13177
- Catalysts for imide formation from aromatic
isocyanates and aromatic dianhydrides
[NASA-CASE-ARC-11107-1] c23 N78-22156
- IMINES**
Synthesis of polymeric schiff bases by
schiff-base exchange reactions
[NASA-CASE-IMP-08651] c06 N71-11236
- Direct synthesis of polymeric schiff bases from
two amines and two aldehydes
[NASA-CASE-IMP-08655] c06 N71-11239
- Synthesis of schiff bases for heat shields by
acetal amine reactions
[NASA-CASE-IMP-08652] c06 N71-11243
- Synthesis of aromatic diamines and dialdehyde
polymers using Schiff base
[NASA-CASE-IMP-03074] c06 N71-24740
- IMMOBILIZATION**
Stretcher with rigid head and neck support with
capability of supporting immobilized person in
vertical position for removal from vehicle
hatch to exterior also useful as splint
stretcher
[NASA-CASE-IMP-06589] c05 N71-23159
- Absolute focus locking device for microscopes to
maintain set focus for extended time period
[NASA-CASE-LAR-10184] c14 N72-22445
- IMPACT**
Shock absorber for use as protective barrier in
impact energy absorbing system
[NASA-CASE-NPO-10671] c15 N72-20443
- System for detecting impact position of cosmic
dust on detector surface
[NASA-CASE-GSC-11291-1] c25 N72-33696
- Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331
- IMPACT ACCELERATION**
Suspended mass oscillation damper based on
impact energy absorption for damping wind
induced oscillations of tall stacks, antennas,
and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146
- IMPACT DAMAGE**
Measuring micrometeoroid depth of penetration
into various materials
[NASA-CASE-XLA-00941] c14 N71-23240
- IMPACT LOADS**
Piezoelectric transducer for detecting and
measuring micrometeoroids
[NASA-CASE-XAC-01101] c14 N70-41957
- Impact testing machine for imparting large
impact forces on high velocity packages
[NASA-CASE-IMP-04817] c14 N71-23225
- IMPACT RESISTANCE**
Electric storage battery with high impact
resistance
[NASA-CASE-NPO-11021] c03 N72-20032
- Hybrid composite laminate structures
[NASA-CASE-LAW-12118-1] c24 N77-27188
- IMPACT STRENGTH**
High impact pressure regulator having minimum
number of lightweight movable elements
[NASA-CASE-NPO-10175] c14 N71-18625
- IMPACT TESTING MACHINES**
Development and characteristics of pentrometer
for measuring physical properties of lunar
surface
[NASA-CASE-XLA-00934] c14 N71-22765
- Impact testing machine for imparting large
impact forces on high velocity packages
[NASA-CASE-IMP-04817] c14 N71-23225
- IMPACT TOLERANCES**
High impact antennas with high radiating
efficiency
[NASA-CASE-NPO-10231] c07 N71-26101
- Vehicular impact absorption system
[NASA-CASE-NPO-14014-1] c37 N79-10420
- IMPEDANCE MATCHING**
Impedance transformation device for signal mixing
[NASA-CASE-XGS-01110] c07 N69-24334
- Reflectometer for receiver input impedance match
measurement
[NASA-CASE-IMP-10843] c07 N71-11267
- Radio frequency coaxial filter to provide dc
isolation and low frequency signal rejection
in audio range
[NASA-CASE-XGS-01418] c09 N71-23573
- Pattern and impedance matching improvements in
transversely polarized triaxial antenna
[NASA-CASE-XGS-02290] c07 N71-28849
- Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336
- IMPEDANCE MEASUREMENTS**
Development of electrical system for measuring
high impedance
[NASA-CASE-IMS-08589-1] c09 N71-20569
- IMPLANTATION**
Biotelemetry apparatus with dual voltage
generators for implanting in animals
[NASA-CASE-IAC-05706] c05 N71-12342
- Magnetic electrical connectors for biomedical
percutaneous implants
[NASA-CASE-KSC-11030-1] c52 N77-25772
- IMPLANTED ELECTRODES (BIOLOGY)**
Improved subcutaneous electrode structure
[NASA-CASE-ARC-11117-1] c52 N79-15576
- IMPLSIONS**
Implosion driven, light gas, hypervelocity gun
[NASA-CASE-IAC-05902] c11 N71-18578
- IMPREGNATING**
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150
- IMPULSE GENERATORS**
Percutaneous connector device
[NASA-CASE-KSC-10849-1] c52 N77-14738
- IMPURITIES**
Fabrication of sintered impurity semiconductor
brushes for electrical energy transfer
[NASA-CASE-IMP-01016] c26 N71-17818
- Method of mitigating titanium impurities effects
in P-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N79-17315
- IN-FLIGHT MONITORING**
An improved system for use in conducting wake
investigation for a wing in flight ---
differential pressure measurements for drag
investigations
[NASA-CASE-PBC-11024-1] c02 N79-17797
- INCIDENCE**
Method of and means for testing a
glancing-incidence mirror system of an X-ray
telescope
[NASA-CASE-MPS-22409-2] c74 N78-15880
- INCIDENT RADIATION**
Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627
- Solar cell assembly --- for use under high
intensity illumination
[NASA-CASE-LEW-11549-1] c44 N77-19571
- INCLINATION**
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029
- INCOHERENT SCATTERING**
Rapidly pulsed, high intensity, incoherent light
source
[NASA-CASE-XLE-2529-3] c33 N74-20859
- INDICATING INSTRUMENTS**
Piezoelectric means for missile stage separation
indication and stage initiation
[NASA-CASE-XLA-00791] c03 N70-39930
- Inductive liquid level detection system
[NASA-CASE-XLE-01609] c14 N71-10500
- Apparatus for determining quality of bond
between high density material and low density
material
[NASA-CASE-MPS-13686] c15 N71-18132
- Device for detecting hydrogen fires onboard high
altitude rockets
[NASA-CASE-MPS-13130] c10 N72-17173
- INDIUM ALLOYS**
Method for attaching a fused-quartz mirror to a
conductive metal substrate
[NASA-CASE-MPS-23405-1] c26 N77-29260

INDOLES

SUBJECT INDEX

Solar cell collector
[NASA-CASE-LRW-12552-1] c44 N78-25527

INDOLES
Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-2] c52 N79-14755

INDUCTANCE
Current dependent variable inductance for input filter chokes of ac or dc power supplies
[NASA-CASE-ERC-10139] c09 N72-17154
Inductance device with vacuum insulation and materials of low gas entrapping capability
[NASA-CASE-LRW-10330-1] c09 N72-27226
Direct reading inductance meter
[NASA-CASE-NPO-13792-1] c35 N77-32455

INDUCTION HEATING
Induction heating of metallurgical specimens to high temperatures in coil furnace
[NASA-CASE-XLB-04026] c14 N71-23267

INDUCTION MOTORS
Voltage controlled oscillator circuit for two-phase induction motor control
[NASA-CASE-MPS-21465-1] c10 N73-32145
Variable frequency inverter for ac induction motors with torque, speed and braking control
[NASA-CASE-MPS-22088-1] c33 N75-15874
Power factor control system for AC induction motors
[NASA-CASE-MPS-23280-1] c33 N78-10376

INDUCTORS
Inductive liquid level detection system
[NASA-CASE-XLE-01609] c14 N71-10500
Describing apparatus used in vacuum deposition of thin film inductive windings for spacecraft microcircuitry
[NASA-CASE-XMF-01667] c15 N71-17647
Double-induction variable speed system for constant-frequency electrical power generation
[NASA-CASE-ERC-10065] c09 N71-27364

INDUSTRIAL PLANTS
Simplified technique and device for producing industrial grade synthetic diamonds
[NASA-CASE-MPS-20698-2] c15 N73-19457

INDUSTRIAL WASTES
Process of forming catalytic surfaces for wet oxidation reactions
[NASA-CASE-MSC-14831-1] c25 N78-10225
Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

INERTIA
Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744

INERTIAL GUIDANCE
Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
[NASA-CASE-MSC-10959] c15 N71-26243

INERTIAL PLATFORMS
Inertial component clamping assembly design for spacecraft guidance and control system mounting
[NASA-CASE-XMS-02184] c15 N71-20813
Inertial gimbal alignment system for spacecraft guidance
[NASA-CASE-XMF-01669] c21 N71-23289
Temperature compensated digital inertial sensor --- circuit for maintaining inertial element of gyroscope or accelerometer at constant position
[NASA-CASE-NPO-13044-1] c35 N74-15094
Attitude control system
[NASA-CASE-MPS-22787-1] c15 N77-10113

INERTIAL REFERENCE SYSTEMS
Development of attitude control system for spacecraft orientation
[NASA-CASE-XGS-04393] c21 N71-14159
Large amplitude, linear inertial reference system of vibrating string type for spacecraft reference plane
[NASA-CASE-XAC-03107] c23 N71-16098

INFLATABLE SPACECRAFT
Passive thermal control coating on aluminum foil laminate for inflatable spacecraft surfaces
[NASA-CASE-XLA-01291] c33 N70-36617
Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309

Rotating, multisided mandrel for fabricating gored inflatable spacecraft
[NASA-CASE-XLA-04143] c15 N71-17687
Forming inflatable panels erectable in space for passive communication satellite
[NASA-CASE-XLA-03497] c15 N71-23052
Development and characteristics of inflatable structure to provide escape from orbit for spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851

INFLATABLE STRUCTURES
Aeroflexible wing structure with air scoop for inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
Design of inflatable life raft for aircrafts and boats
[NASA-CASE-XMS-00863] c05 N70-34857
Lightweight life preserver without fastening devices
[NASA-CASE-XMS-00864] c05 N70-36493
Inflatable honeycomb panel element for lightweight structures usable in space stations and other construction
[NASA-CASE-XLA-00204] c32 N70-36536
Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
[NASA-CASE-XMS-00893] c07 N70-40063
Temperature sensor warning system for pneumatic tires of aircraft and ground vehicles
[NASA-CASE-XLA-01926] c14 N71-15620
Inflation system for balloon type satellites
[NASA-CASE-XGS-03351] c31 N71-16081
Development and characteristics of protective coatings for spacecraft
[NASA-CASE-XMF-02507] c31 N71-17679
Development and characteristics of self supporting space vehicle
[NASA-CASE-XLA-00117] c31 N71-17680
Conforming polisher for aspheric surfaces of revolution with inflatable tube
[NASA-CASE-XGS-02884] c15 N71-22705
Technique for making foldable, inflatable, plastic honeycomb core panels for use in building and bridge structures, light and radio wave reflectors, and spacecraft
[NASA-CASE-XLA-03492] c15 N71-22713
Collapsible antenna boom and coaxial transmission line having inflatable inner tube
[NASA-CASE-MPS-20068] c07 N71-27191
Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936
Inflatable rocket engine nozzle skirt with transpiration cooling
[NASA-CASE-MPS-20619] c28 N72-11708
Modification of one man life raft
[NASA-CASE-LAR-10241-1] c54 N74-14845
Emergency space-suit helmet
[NASA-CASE-MSC-10954-1] c54 N78-18761

INFORMATION RETRIEVAL
Multiple pattern holographic information storage and readout system
[NASA-CASE-ERC-10151] c16 N71-29131

INFRARED DETECTORS
Temperature sensitive capacitor device for detecting very low intensity infrared radiation
[NASA-CASE-XMF-09750] c14 N69-39937
Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-XMF-03934] c09 N71-22985
Characteristics of infrared photodetectors manufactured from semiconductor material irradiated by electron beam
[NASA-CASE-LAR-10728-1] c14 N73-12445
Doped Josephson tunneling junction for use in a sensitive IR detector
[NASA-CASE-NPO-13348-1] c33 N75-31332

INFRARED INSTRUMENTS
Infrared scanning system for maintaining spacecraft orientation with earth reference
[NASA-CASE-XLA-00120] c21 N70-33181

INFRARED INTERFEROMETERS
Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395

INFRARED LASERS
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver

SUBJECT INDEX

INPUT

[NASA-CASE-NPO-11919-1] c35 N74-11284
 Gregorian all-reflective optical system
 [NASA-CASE-GSC-12058-1] c74 N77-26942
 Thermal compensator for closed-cycle helium
 refrigerator --- assuring constant temperature
 for an infrared laser diode
 [NASA-CASE-GSC-12168-1] c31 N79-17029

INFRARED RADIATION
 High speed infrared furnace
 [NASA-CASE-XLE-10466] c17 N69-25147
 High field CdS detector for infrared radiation
 [NASA-CASE-LAR-11027-1] c35 N74-18088

INFRARED REFLECTION
 Electromagnetic radiation energy arrangement ---
 coatings for solar energy absorption and
 infrared reflection
 [NASA-CASE-WOO-00428-1] c32 N79-19186

INFRARED SCANNERS
 Infrared scanning system for maintaining
 spacecraft orientation with earth reference
 [NASA-CASE-XLA-00120] c21 N70-33181
 Method and equipment for locating earth infrared
 horizon from space, independent of season and
 latitude
 [NASA-CASE-LAR-10726-1] c14 N73-20475

INFRARED SPECTRA
 Diatomic infrared gasdynamic laser --- for
 producing different wavelengths
 [NASA-CASE-ARC-10370-1] c36 N75-31426

INFRARED SPECTROMETERS
 Telespectrograph for analyzing upper atmosphere
 by tracking bodies reentering atmosphere at
 high velocities
 [NASA-CASE-XLA-03273] c14 N71-18699

INFRARED SPECTROSCOPY
 Apparatus for providing a servo drive signal in
 a high-speed stepping interferometer
 [NASA-CASE-NPO-13569-2] c35 N79-14348

INFRASONIC FREQUENCIES
 Resonant infrasonic gauging device for measuring
 liquid quantity in closed bladderless reservoir
 [NASA-CASE-MSC-11847-1] c14 N72-11363

INHIBITORS
 Inhibited solid propellant composition
 containing beryllium hydride
 [NASA-CASE-NPO-10866-1] c28 N79-14228

INITIATORS (EXPLOSIVES)
 Piezoelectric means for missile stage separation
 indication and stage initiation
 [NASA-CASE-XLA-00791] c03 N70-39930
 Electroexplosive safe-arm initiator using
 electric driven electromagnetic coils and
 magnets to align charge
 [NASA-CASE-LAR-10372] c09 N71-18599
 Electroexplosive device
 [NASA-CASE-NPO-13858-1] c28 N79-11231

INJECTION
 Foam insulation thickness measuring and
 injection device for spacecraft applications
 [NASA-CASE-MFS-20261] c14 N71-27005

INJECTORS
 Propellant injectors for rocket combustion
 chambers
 [NASA-CASE-XLE-00103] c28 N70-33241
 Fuel injection system for maximum combustion
 efficiency of rocket engines
 [NASA-CASE-XLE-00111] c28 N70-38199
 Injector manifold assembly for bipropellant
 rocket engines providing for fuel propellant
 to serve as coolant
 [NASA-CASE-XNF-00148] c28 N70-38710
 Method and apparatus for use in forming highly
 collimated beam of microparticles with high
 charge to mass ratio and injecting beam into
 electrostatic accelerating tube
 [NASA-CASE-XGS-06628] c24 N71-16213
 Control valve and coaxial variable injector for
 controlling bipropellant mixture ratio and flow
 [NASA-CASE-XNF-09702] c15 N71-17654
 Rocket engine injector orifice to accommodate
 changes in density, velocity, and pressure,
 thereby maintaining constant mass flow rate of
 propellant into rocket combustion chamber
 [NASA-CASE-XLE-03157] c28 N71-24736
 Bipropellant injector with pair of concave
 deflector plates
 [NASA-CASE-XNF-09461] c28 N72-23809
 Coaxial injector for mixing liquid propellants
 within combustion chambers

[NASA-CASE-NPO-11095] c15 N72-25455
 Improved injector with porous plug for bubbles
 of gas into feed lines of electrically
 conductive liquid
 [NASA-CASE-NPO-11377] c15 N73-27406
 Rocket injector head
 [NASA-CASE-XNF-04592-1] c20 N79-21125

INLET FLOW
 High pressure four-way valve with O ring adapted
 to pass across inlet port
 [NASA-CASE-XNF-00214] c15 N70-36908
 Method for maintaining good performance in gas
 turbine during air flow distortion
 [NASA-CASE-LEW-10286-1] c28 N71-28915
 Airflow control system for supersonic inlets
 [NASA-CASE-LEW-11188-1] c02 N74-20646
 Variably positioned guide vanes for aerodynamic
 choking
 [NASA-CASE-LAR-10642-1] c07 N74-31270
 Shock position sensor for supersonic inlets ---
 measuring pressure in the throat of a
 supersonic inlet
 [NASA-CASE-LEW-11915-1] c35 N76-14431
 Method for fabricating a mass spectrometer inlet
 leak
 [NASA-CASE-GSC-12077-1] c35 N77-24455
 Gas turbine engine with recirculating bleed
 [NASA-CASE-LEW-12452-1] c07 N78-25089

INLET NOZZLES
 Rocket injector head
 [NASA-CASE-XNF-04592-1] c20 N79-21125

INLET PRESSURE
 Fluid jet amplifier with fluid from jet nozzle
 deflected by inlet pressure
 [NASA-CASE-XLE-03512] c12 N69-21466
 Shock position sensor for supersonic inlets ---
 measuring pressure in the throat of a
 supersonic inlet
 [NASA-CASE-LEW-11915-1] c35 N76-14431

INOCULATION
 Automatic inoculating apparatus --- includes
 movable carriage, drive motor, and swabbing
 motor
 [NASA-CASE-LAR-11074-1] c51 N75-13502

INORGANIC COATINGS
 Composition of diffuse reflective coating
 containing sodium chloride in combination with
 diol solvent and organic wetting and drying
 agents
 [NASA-CASE-GSC-11214-1] c06 N73-13128
 Boron trifluoride coatings for thermoplastic
 materials and method of applying same in glow
 discharge
 [NASA-CASE-ARC-11057-1] c27 N78-31233

INORGANIC COMPOUNDS
 Inorganic ion exchange membrane electrolytes for
 fuel cell use
 [NASA-CASE-XNF-04264] c03 N69-21337
 Preparation of inorganic solid film lubricants
 with long wear life and stability in aerospace
 environments
 [NASA-CASE-XNF-03988] c15 N71-21403
 Modification of polyurethanes with alkyl halide
 resins, inorganic salts, and encapsulated
 volatile and reactive halogen for fuel fire
 control
 [NASA-CASE-ARC-10098-1] c06 N71-24739
 Inorganic thermal control and solar reflector
 coatings
 [NASA-CASE-MFS-20011] c18 N72-22566
 Inorganic-organic separators for alkaline
 batteries
 [NASA-CASE-LEW-12649-1] c44 N78-25530
 Method for the preparation of inorganic single
 crystal and polycrystalline electronic materials
 [NASA-CASE-XLE-02545-1] c76 N79-21910

INORGANIC PEROXIDES
 Process for preparing higher oxides of the
 alkali and alkaline earth metals
 [NASA-CASE-ARC-10992-1] c26 N78-32229
 Process for the preparation of calcium superoxide
 [NASA-CASE-ARC-11053-1] c25 N79-10162

INPUT
 Apparatus for filtering input signals
 [NASA-CASE-NPO-10198] c09 N71-24806
 RC networks with voltage amplifier, RC input
 circuit, and positive feedback
 [NASA-CASE-ARC-10020] c10 N72-17172

INPUT/OUTPUT ROUTINES

SUBJECT INDEX

INPUT/OUTPUT ROUTINES.

Analog to digital converter
[NASA-CASE-NPO-13385-1] c33 N76-18345

INSERTION LOSS

High impedance alternating current sensing transformer device between two bolometers for measuring insertion loss of test component
[NASA-CASE-INP-01193] c10 N71-16057

INSPECTION

Automatic visual inspection system for microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396

INSTALLING

Device for installing rocket engines
[NASA-CASE-MFS-19220-1] c20 N76-22296
Thermocouple installation
[NASA-CASE-NPO-13540-1] c35 N77-14409
A method and technique for installing light-weight fragile, high-temperature fiber insulation --- sealing recoverable spacecraft
[NASA-CASE-HSC-16934-1] c24 N79-16923
A method of making high temperature seals
[NASA-CASE-HSC-16973-1] c37 N79-17224

INSTRUMENT ERRORS

Solar radiation direction detector and device for compensating degradation of photocells
[NASA-CASE-XLA-00183] c14 N70-40239

INSTRUMENT FLIGHT RULES

Controlled visibility device for simulating poor visibility conditions in training pilots in instrument landing and flight procedures
[NASA-CASE-XPR-04147] c11 N71-10748

INSTRUMENT ORIENTATION

Sensor consisting of photocells mounted on pyramidal base for improved pointing accuracy of planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736

Inertial gimbals alignment system for spacecraft guidance
[NASA-CASE-XNP-01669] c21 N71-23289

Optical gauging system for monitoring machine tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673

Development of solar energy powered helictrope assembly to orient solar array toward sun
[NASA-CASE-GSC-10945-1] c21 N72-31637

Visible and infrared polarization ratio spectroradiometer
[NASA-CASE-LAR-12285-1] c35 N78-32398

INSTRUMENT PACKAGES

Apparatus for ejecting covers of instrument packages using differential pressure principle
[NASA-CASE-XNP-04132] c15 N69-27502

Removable potting compound for instrument shock protection
[NASA-CASE-XLA-00482] c15 N70-36409

Plastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778

High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692

Ethylene oxide sterilization and encapsulating process for sterile preservation of instruments and solid propellants
[NASA-CASE-INP-09763] c14 N71-20461

[NASA-CASE-INP-09763] c14 N71-20461

INSTRUMENTS

Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-XNP-09422] c07 N71-19436

Design and development of pressure sensor for measuring differential pressures of few pounds per square inch
[NASA-CASE-XNP-01974] c14 N71-22752

Development of temperature compensated thrust measuring gage for measuring forces as function of time in environment with varying temperature
[NASA-CASE-IGS-02319] c14 N71-22965

Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
[NASA-CASE-XLA-00781] c09 N71-22999

Design, development, and characteristics of pressure and temperature sensor operating

immersed in fluid flow
[NASA-CASE-LEW-10281-1] c14 N72-17327

Development of apparatus for mounting scientific experiments in spacecraft to permit utilization without maneuvering spacecraft
[NASA-CASE-MSC-12372-1] c31 N72-25842

Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-2] c37 N78-27424

Rotary leveling base platform
[NASA-CASE-ARC-10981-1] c37 N78-27425

INSULATED STRUCTURES

Low thermal loss piping arrangement for moving cryogenic media through double chamber structure
[NASA-CASE-XNP-08882] c15 N69-39935

INSULATION

Electrode attached to helmets for detecting low level signals from skin of living creatures
[NASA-CASE-ARC-10043-1] c05 N71-11193

Characteristics of foamed-in-place ceramic refractory insulating material and method of fabrication
[NASA-CASE-XGS-02435] c18 N71-22998

Method of fabricating equal length insulated wire
[NASA-CASE-FRC-10038] c15 N72-20444

Inductance device with vacuum insulation and materials of low gas entrapping capability
[NASA-CASE-LEW-10330-1] c09 N72-27226

Insulated electrocardiographic electrodes --- without paste electrolyte
[NASA-CASE-MSC-14339-1] c05 N75-24716

Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376

Two-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-1] c27 N76-22377

Three-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-2] c27 N76-23426

Field effect transistor and method of construction thereof
[NASA-CASE-MPS-23312-1] c33 N78-27326

Fibrous refractory composite insulation
[NASA-CASE-ARC-11169-1] c24 N78-32189

Cork-resin ablative insulation for complex surfaces and method for applying the same
[NASA-CASE-MPS-23626-1] c24 N78-32190

A method of making high temperature seals
[NASA-CASE-HSC-16973-1] c37 N79-17224

INSULATORS

High voltage insulators for direct current in acceleration system of electrostatic thruster
[NASA-CASE-XLE-01902] c28 N71-10574

High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302

INTAKE SYSTEMS

Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788

The engine air intake system
[NASA-CASE-ARC-10761-1] c07 N77-18154

Fluid sampling device
[NASA-CASE-GSC-12143-1] c35 N77-32456

Reciprocating engines
[NASA-CASE-MSC-16239-1] c37 N78-11399

INTEGRATED CIRCUITS

Computer circuit performing both counting and shifting logic operations also capable of miniaturization and integration in basic circuits
[NASA-CASE-INP-01753] c08 N71-22897

Development and characteristics of electric circuitry for detecting electrical pulses rise time and amplitude
[NASA-CASE-XNP-08804] c09 N71-24717

Method and apparatus for testing integrated circuit microtab welds
[NASA-CASE-ARC-10176-1] c15 N72-21464

Single integrated circuit chip with field effect transistor
[NASA-CASE-GSC-10835-1] c09 N72-33205

Integrated circuit tangent function generator
[NASA-CASE-MSC-13907-1] c10 N73-26230

Inverted geometry transistor for use with monolithic integrated circuit
[NASA-CASE-ARC-10330-1] c09 N73-32112

Integrated circuit package with lead structure and method of preparing the same

SUBJECT INDEX

INVERTERS

- [NASA-CASE-HFS-21374-1] c33 N74-12951
Integrated P-channel MOS gyrator
[NASA-CASE-HFS-22343-1] c33 N74-34638
Four phase logic systems --- including
integrated microcircuits
[NASA-CASE-HSC-14240-1] c33 N75-14957
Integrable power gyrator --- with Z-matrix
design using parallel transistors
[NASA-CASE-HFS-22342-1] c33 N75-30428
Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395
Solar cell system having alternating current
output
[NASA-CASE-LEW-12806-1] c44 N78-25553
Method for analyzing radiation sensitivity of
integrated circuits
[NASA-CASE-NPO-14350-1] c33 N78-27330
Microwave integrated circuit for Josephson
voltage standards
[NASA-CASE-HFS-23845-1] c33 N78-32347
Complementary DMOS-VMOS integrated circuit
structure
[NASA-CASE-GSC-12190-1] c33 N79-12321
- INTEGRATORS**
Solid state operational integrator
[NASA-CASE-NPO-10230] c09 N71-12520
Variable duration pulse integrator design for
integrating pulse duration modulated pulses
with elimination of ripple content
[NASA-CASE-XLA-01219] c10 N71-23084
Solid state integrator for converting variable
width pulses into analog voltage
[NASA-CASE-XLA-03356] c10 N71-23315
Feedback integrating circuit with grounded
capacitor for signal processing
[NASA-CASE-XAC-10607] c10 N71-23669
High speed phase detector design indicating
phase relationship between two square wave
input signals
[NASA-CASE-XNP-01306-2] c09 N71-24596
- INTERFEROMETERS**
Describing device for velocity control of
electromechanical drive mechanism of scanning
mirror of interferometer
[NASA-CASE-XGS-03532] c14 N71-17627
Incremental motion drive system applied to
interferometer components
[NASA-CASE-XNP-08897] c15 N71-17694
Design and development of optical interferometer
with laser light source for application to
schlieren systems
[NASA-CASE-XLA-04295] c16 N71-24170
Digital sensor for counting fringes produced by
interferometers with improved sensitivity and
one photomultiplier tube to eliminate
alignment problem
[NASA-CASE-LAR-10204] c14 N71-27215
Two beam interferometer-polarimeter
[NASA-CASE-NPO-11239] c14 N73-12446
Interferometer prism and control system for
precisely determining direction to remote
light source
[NASA-CASE-ABC-10278-1] c14 N73-25463
High resolution Fourier
interferometer-spectrophotopolarimeter
[NASA-CASE-NPO-13604-1] c35 N76-31490
Velocity servo for continuous scan Fourier
interference spectrometer
[NASA-CASE-NPO-14093-1] c74 N78-22891
Apparatus for providing a servo drive signal in
a high-speed stepping interferometer
[NASA-CASE-NPO-13569-2] c35 N79-14348
Interferometer
[NASA-CASE-NPO-14502-1] c35 N79-19317
- INTERFEROMETRY**
Interferometric locating system
[NASA-CASE-NPO-14173-1] c04 N79-10039
Surface roughness measuring system --- synthetic
aperture radar measurements of ocean wave
height and terrain peaks
[NASA-CASE-NPO-13862-1] c35 N79-10391
- INTERMEDIATE FREQUENCY AMPLIFIERS**
Multichannel logarithmic RF level detector
[NASA-CASE-LAR-11021-1] c32 N76-14321
- INTERMETALLICS**
Controlled diffusion reaction process for
masking substrate of twisted multifilament
superconductive ribbon
[NASA-CASE-LEW-11726-1] c26 N73-26752
- Production of intermetallic compounds by effect
of shock waves from explosions and compaction
of powder
[NASA-CASE-HFS-20861-1] c18 N73-32437
- INTERNAL COMBUSTION ENGINES**
Variable displacement fuel pump for internal
combustion engines
[NASA-CASE-HSC-12139-1] c28 N71-14058
Detonation reaction engine comprising outer
housing enclosing pair of inner walls for
continuous flow
[NASA-CASE-INP-06926] c28 N71-22983
Development of system for preheating vaporized
fuel for use with internal combustion engines
[NASA-CASE-NPO-12072] c28 N72-22772
System for minimizing internal combustion engine
pollution emission
[NASA-CASE-NPO-13402-1] c37 N76-18457
Internal combustion engine with electrostatic
discharging fuels
[NASA-CASE-NPO-13798-1] c37 N77-25535
Combustion engine --- for air pollution control
[NASA-CASE-NPO-13671-1] c37 N77-31497
Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431
Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122
Hydrogen-fueled engine
[NASA-CASE-NPO-13763-1] c44 N78-33526
Plasma igniter for internal combustion engine
[NASA-CASE-NPO-13828-1] c37 N79-11405
Indicated mean-effective pressure instrument
[NASA-CASE-LEW-12661-1] c35 N79-14345
- INTERPLANETARY SPACE**
Compact heat shielding for interplanetary space
vehicles
[NASA-CASE-XMS-00486] c33 N70-33344
Active RC filter networks and amplifiers for
deep space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171
- INTERPLANETARY SPACECRAFT**
Transpirationally cooled heat ablation system
for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-02677] c31 N70-42075
- INTERPLANETARY TRAJECTORIES**
Table structure and rotating magnet system
simulating gravitational forces on spacecraft
and displaying trajectories between Earth,
Venus, and Mercury
[NASA-CASE-XNP-00708] c14 N70-35394
- INTRACRANIAL PRESSURE**
Induction powered biological radiosonde --- for
measuring intracranial pressure
[NASA-CASE-ABC-11120-1] c52 N77-23743
- INTRAOCULAR PRESSURE**
Intra-ocular pressure normalization apparatus
[NASA-CASE-LEW-12955-1] c52 N77-30736
Intra-ocular pressure normalization technique
and equipment
[NASA-CASE-LEW-12723-1] c52 N77-30737
- INTRAUTERINE ACTIVITY**
Intra- and extravehicular life support space
suite for Apollo astronauts
[NASA-CASE-HSC-12609-1] c05 N73-32012
- INTRUSION**
Passive intrusion detection system
[NASA-CASE-NPO-13804-1] c35 N77-19390
- INVENTIONS**
Gas path seal
[NASA-CASE-LEW-12131-2] c07 N78-31103
- INVERTED CONVERTERS (DC TO AC)**
Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090
Variable frequency inverter for ac induction
motors with torque, speed and braking control
[NASA-CASE-HFS-22088-1] c33 N75-15874
- INVERTERS**
Silicon controlled rectifier inverter with
compensation of transients to avoid false gating
[NASA-CASE-XLA-08507] c09 N69-39984
Inverter oscillator with voltage feedback
[NASA-CASE-NPO-10760] c09 N72-25254
Overload protection system for power inverter
[NASA-CASE-NPO-13872-1] c33 N78-10377
Module failure isolation circuit for paralleled
inverters
[NASA-CASE-NPO-14000-1] c33 N78-22299
Improved base drive for paralleled inverter
systems

[NASA-CASE-NPO-14163-1] c37 N78-22376

IODINE

Method of producing output voltage from photovoltaic cell using poly-N-vinyl carbazole complexed with iodine [NASA-CASE-NPO-10373] c03 N71-18698

Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor [NASA-CASE-INP-01960] c09 N71-23027

Iodine generator for reclaimed water purification [NASA-CASE-NSC-14632-1] c54 N78-14784

IODINE ISOTOPES

Apparatus for producing high purity I-123 from Xe-123 by bombarding tellurium target with cyclotron beam [NASA-CASE-LEW-10518-2] c24 N72-28714

Production of I-123 for use as radiopharmaceutical for low radiation exposure [NASA-CASE-LEW-10518-1] c24 N72-33681

Method of producing I-123 --- by bombardment of cesium causing spallation [NASA-CASE-LEW-11390-2] c25 N76-27383

Production of I-123 [NASA-CASE-LEW-11390-3] c25 N76-29379

ION ACCELERATORS

Helium outgassing process for fused glass coating on ion accelerator grid [NASA-CASE-LEW-10278-1] c15 N71-28582

ION BEAMS

Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces [NASA-CASE-LEW-10689-1] c28 N71-26173

Dispensing targets for ion beam particle generators [NASA-CASE-NPO-13112-1] c73 N74-26767

Sputtering holes with ion beamlets [NASA-CASE-LEW-11646-1] c20 N74-31269

Method of constructing dished ion thruster grids to provide hole array spacing compensation [NASA-CASE-LEW-11876-1] c20 N76-21276

Ion beam thruster shield [NASA-CASE-LEW-12082-1] c20 N77-10148

Targets for producing high purity I-123 [NASA-CASE-LEW-10518-3] c25 N78-27226

Method of cold welding using ion beam technology [NASA-CASE-LEW-12982-1] c37 N78-28459

ION CHARGE

Quadrupole mass spectrometer using noise spectrum for ion separation and identification [NASA-CASE-INP-04231] c14 N73-32325

ION CONCENTRATION

Deposition of alloy films --- on irregularly shaped metal object [NASA-CASE-LEW-11262-1] c27 N74-13270

ION CURRENTS

System for monitoring presence of neutrals in streams of ions - ion engine control [NASA-CASE-INP-02592] c24 N71-20518

ION CYCLOTRON RADIATION

Ion and electron detector for use in an ICR spectrometer [NASA-CASE-NPO-13479-1] c35 N77-10492

ION DENSITY (CONCENTRATION)

Method and apparatus for measurement of trap density and energy distribution in dielectric films [NASA-CASE-NPO-13443-1] c76 N76-20994

ION ENGINES

Improved cathode containing barium carbonate block and heated tungsten screen for electron bombardment ion thruster [NASA-CASE-XLE-07087] c06 N69-39889

High-vacuum condenser tank for testing ion rocket engines [NASA-CASE-XLE-00168] c11 N70-33278

Encapsulated heater forming hollow body for cathode used in ion thruster [NASA-CASE-LEW-10814-1] c28 N70-35422

Electrostatic ion engines using high velocity electrons to ionize propellant [NASA-CASE-XLE-00376] c28 N70-37245

Metal ion rocket engine design [NASA-CASE-XLE-00342] c28 N70-37980

Dynamometer measuring microforce thrust produced by ion engine [NASA-CASE-XLE-00702] c14 N70-40203

Increasing available power per unit area in ion rocket engine by increasing beam density [NASA-CASE-XLE-00519] c28 N70-41576

Accel and focus electrode design for ion engine with improved efficiency [NASA-CASE-INP-02839] c28 N70-41922

Ion engine with magnetic circuit for optimal discharge [NASA-CASE-XLE-01124] c28 N71-14043

Electron bombardment ion rocket engine with improved propellant introduction system [NASA-CASE-XLE-02066] c28 N71-15661

System for monitoring presence of neutrals in streams of ions - ion engine control [NASA-CASE-INP-02592] c24 N71-20518

Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space [NASA-CASE-INP-02923] c28 N71-23081

Electronic cathodes for use in electron bombardment ion thrusters [NASA-CASE-XLE-04501] c09 N71-23190

Permanently magnetized ion engine casing construction for use in spacecraft propulsion systems [NASA-CASE-INP-06942] c28 N71-23293

Development and characteristics of ion thruster accelerator with single glass coated grid to provide increased ion extraction capability and larger diameter accelerator system [NASA-CASE-LEW-10106-1] c28 N71-26642

Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster [NASA-CASE-LEW-10210-1] c28 N71-26781

Low mass ionizing device for use in electric thrust spacecraft engines [NASA-CASE-INP-01954] c28 N71-28850

Development of system for delivering vaporized mercury to electron bombardment ion engine [NASA-CASE-NPO-10737] c28 N72-11709

Characteristics of ion rocket engine with combination keeper electrode and electron baffle [NASA-CASE-NPO-11880] c28 N73-24783

Single grid accelerator system for electron bombardment type ion thruster [NASA-CASE-XLE-10453-2] c28 N73-27699

Method of making dished ion thruster grids [NASA-CASE-LEW-11694-1] c20 N75-18310

Method of constructing dished ion thruster grids to provide hole array spacing compensation [NASA-CASE-LEW-11876-1] c20 N76-21276

ION EXCHANGE MEMBRANE ELECTROLYTES

Inorganic ion exchange membrane electrolytes for fuel cell use [NASA-CASE-INP-04264] c03 N69-21337

Development and characteristics of ion-exchange membrane and electrode assembly for fuel cells or electrolysis cells [NASA-CASE-INS-02063] c03 N71-29044

Formulated plastic separators for soluble electrode cells [NASA-CASE-LEW-12358-2] c25 N78-25149

Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes [NASA-CASE-LEW-12358-1] c44 N79-17313

ION EXCHANGE RESINS

Inorganic-organic separators for alkaline batteries [NASA-CASE-LEW-12649-1] c44 N78-25530

ION EXTRACTION

Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field [NASA-CASE-LEW-12465-1] c25 N78-25148

ION IRRADIATION

Modification of the electrical and optical properties of polymers --- ion irradiation [NASA-CASE-LEW-13027-1] c27 N79-11216

ION PROBES

Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids [NASA-CASE-EBC-10014] c14 N71-28863

ION PROPULSION

Variable thrust ion engine using thermal decomposition of solid cesium compound to

SUBJECT INDEX

IRRADIATION

- produce propulsive vapor
[NASA-CASE-IMP-00923] c28 N70-36802
- Electrostatic ion engines using high velocity electrons to ionize propellant
[NASA-CASE-XLE-00376] c28 N70-37245
- Metal ion rocket engine design
[NASA-CASE-XLE-00342] c28 N70-37980
- Method for producing porous tungsten plates for ionizing cesium compounds for propulsion of ion engines
[NASA-CASE-XLE-00455] c28 N70-38197
- Accel and focus electrode design for ion engine with improved efficiency
[NASA-CASE-IMP-02839] c28 N70-41922
- Electric rocket engine with electron bombardment ionization chamber
[NASA-CASE-IMP-04124] c28 N71-21822
- Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
[NASA-CASE-LEW-10689-1] c28 N71-26173
- Development and characteristics of ion thruster accelerator with single glass coated grid to provide increased ion extraction capability and larger diameter accelerator system
[NASA-CASE-LEW-10106-1] c28 N71-26642
- Development of system for delivering vaporized mercury to electron bombardment ion engine
[NASA-CASE-NPO-10737] c28 N72-11709
- Radial magnetic field for ion thruster
[NASA-CASE-LEW-10770-1] c28 N72-22770
- Automatic shunting of ion thruster magnetic field when thruster is not operating
[NASA-CASE-LEW-10835-1] c28 N72-22771
- Method of making dish ion thruster grids
[NASA-CASE-LEW-11694-1] c20 N75-18310
- Apparatus for forming dish ion thruster grids
[NASA-CASE-LEW-11694-2] c37 N76-14461
- Anode for ion thruster
[NASA-CASE-LEW-12048-1] c20 N77-20162
- Closed loop solar array-ion thruster system with power control circuitry
[NASA-CASE-LEW-12780-1] c20 N79-20179
- ION PUMPS**
Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406
- ION SOURCES**
Apertured electrode focusing system for ion sources with nonuniform plasma density
[NASA-CASE-IMP-03332] c09 N71-10618
- Multilayer porous refractory metal ionizer design with thick, porous, large-grain substrates and thin, porous micron-grain substrates
[NASA-CASE-IMP-04338] c17 N71-23046
- Development and characteristics of ion thruster accelerator with single glass coated grid to provide increased ion extraction capability and larger diameter accelerator system
[NASA-CASE-LEW-10106-1] c28 N71-26642
- Low mass ionizing device for use in electric thrust spacecraft engines
[NASA-CASE-IMP-01954] c28 N71-28850
- Development and characteristics of apparatus for ionization analysis
[NASA-CASE-ARC-10017-1] c14 N72-29464
- Sputtering holes with ion beamlets
[NASA-CASE-LEW-11646-1] c20 N74-31269
- Multitarget sequential sputtering apparatus
[NASA-CASE-NPO-13345-1] c37 N75-19684
- Hydrogen hollow cathode ion source
[NASA-CASE-LEW-12940-1] c75 N79-10894
- ION TRAPS (INSTRUMENTATION)**
Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994
- IONIZATION CHAMBERS**
Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-IMP-03128] c10 N70-41991
- Electric rocket engine with electron bombardment ionization chamber
[NASA-CASE-IMP-04124] c28 N71-21822
- Multichannel photoionization chamber for measuring absorption, photoionization yield, and coefficients of gases
[NASA-CASE-ERC-10044-1] c14 N71-27090
- Development and characteristics of apparatus for ionization analysis
[NASA-CASE-ARC-10017-1] c14 N72-29464
- IONIZATION GAGES**
Ionization vacuum gage
[NASA-CASE-IMP-00646] c14 N70-35666
- Ionization control system design for monitoring separately located ion gage pressures on vacuum chambers
[NASA-CASE-XLE-00787] c14 N71-21090
- Development and characteristics of apparatus for ionization analysis
[NASA-CASE-ARC-10017-1] c14 N72-29464
- Ionization gage for measuring ultrahigh vacuum levels
[NASA-CASE-XLA-05087] c14 N73-30391
- IONIZATION POTENTIALS**
Electrodes having array of small surfaces for field ionization
[NASA-CASE-ERC-10013] c09 N71-26678
- IONIZED GASES**
Plasma probes having guard ring and primary sensor at same potential to prevent stray wall current collection in ionized gases
[NASA-CASE-XLE-00690] c25 N69-39884
- Transient heat transfer gage for measuring total radiant intensity from far ultraviolet and ionized high temperature gases
[NASA-CASE-IMP-09802] c33 N71-15641
- Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field
[NASA-CASE-LEW-12465-1] c25 N78-25148
- IONIZERS**
Description of electrical equipment and system for purification of waste water by producing silver ions for bacterial control
[NASA-CASE-MSC-10960-1] c03 N71-24718
- Method of making dish ion thruster grids
[NASA-CASE-LEW-11694-1] c20 N75-18310
- IONIZING RADIATION**
High voltage cable for use in high intensity ionizing radiation fields
[NASA-CASE-IMP-00738] c09 N70-38201
- Reinforced polyquinoxaline gasket and method of preparing the same --- resistant to ionizing radiation and liquid hydrogen temperatures
[NASA-CASE-NFS-21364-1] c37 N74-18126
- IONOSPHERE**
Lightweight, rugged, inexpensive satellite battery for producing electrical power from ionosphere using electrodes with different contact potentials
[NASA-CASE-IGS-01593] c03 N70-35408
- IONS**
Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N73-20477
- IRIDIUM**
Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12174-2] c35 N79-14346
- IRISES (MECHANICAL APERTURES)**
Waveguide, thin film window and microwave irises
[NASA-CASE-LAR-10513-1] c07 N72-25170
- Development of thin film microwave iris installed in microwave waveguide transverse to flow of energy in waveguide
[NASA-CASE-LAR-10511-1] c09 N72-29172
- IRON**
Coal desulfurization
[NASA-CASE-NPO-14272-1] c25 N78-33164
- IRON ALLOYS**
Tantalum modified ferritic iron base alloys
[NASA-CASE-LEW-12095-1] c26 N78-18182
- High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-3] c26 N79-19145
- IRRADIATION**
Solar sensor with coarse and fine sensing elements for matching preirradiated cells on degradation rates
[NASA-CASE-XLA-01584] c14 N71-23269
- Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-NFS-20095] c24 N72-11595

IRRIGATION

SUBJECT INDEX

Production of pure metals
[NASA-CASE-LEW-10906-1] c25 N74-30502

Method for analyzing radiation sensitivity of
integrated circuits
[NASA-CASE-NPO-14350-1] c33 N78-27330

IRRIGATION
Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

ISOLATORS
Internal labyrinth and shield structure to
improve electrical isolation of propellant
feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781

Positive isolation disconnect
[NASA-CASE-MSC-16043-1] c37 N79-11402

ISOPROPYL ALCOHOL
Preparation of fluorinated polyethers from
2-hydro-perhaloisopropyl alcohols
[NASA-CASE-MPS-11492] c06 N73-30102

ISOTHERMAL LAYERS
Double-wall isothermal cylinder containing heat
transfer fluid thermal reservoir as spacecraft
insulation cover
[NASA-CASE-MPS-20355] c33 N71-25353

ISOTHERMAL PROCESSES
General purpose rocket furnace
[NASA-CASE-MPS-23460-1] c09 N77-12070

Opto-mechanical subsystem with temperature
compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366

ISOTOPE SEPARATION
Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

J

JET AIRCRAFT
Deflector for preventing objects from entering
nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788

JET AIRCRAFT NOISE
Upper surface, external flow, jet-augmented flap
configuration for high wing jet aircraft for
noise reduction
[NASA-CASE-XLA-00087] c02 N70-33332

Jet aircraft exhaust nozzle for noise reduction
[NASA-CASE-LAR-10951-1] c28 N73-19819

Development of aircraft configuration for
reduction of jet aircraft noise by exhausting
engine gases over upper surface of wing
[NASA-CASE-LAR-11087-1] c02 N73-26008

Noise suppressor --- for turbofan engine by
incorporating annular acoustically porous
elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418

Abating exhaust noises in jet engines
[NASA-CASE-ARC-10712-1] c07 N74-33218

Instrumentation for measurement of aircraft
noise and sonic boom
[NASA-CASE-LAR-11173-1] c35 N75-19614

Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117

Apparatus and method for jet noise suppression
[NASA-CASE-LAR-11903-1] c07 N77-15036

JET AMPLIFIERS
Fluid jet amplifier with fluid from jet nozzle
deflected by inlet pressure
[NASA-CASE-XLE-03512] c12 N69-21466

Fluid control jet amplifiers
[NASA-CASE-XLE-09341] c12 N71-28741

JET BLAST EFFECTS
Separation mechanism for use between stages of
multistage rocket vehicles
[NASA-CASE-XLA-00188] c15 N71-22874

JET CONTROL
Attitude control device for space vehicles
[NASA-CASE-IMP-00294] c21 N70-36938

JET ENGINES
Absorptive, nonreflecting barrier mounted
between closely spaced jet engines on
supersonic aircraft, for preventing shock wave
interference
[NASA-CASE-XLA-02865] c28 N71-15563

Development of thrust dynamometer for measuring
performance of jet and rocket engines
[NASA-CASE-XLE-05260] c14 N71-20429

Afterburner-equipped jet engine nacelle with
slotted configuration afterbody
[NASA-CASE-XLA-10450] c28 N71-21493

Process for welding compressor and turbine
blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515

Variably positioned guide vanes for aerodynamic
choking
[NASA-CASE-LAR-10642-1] c07 N74-31270

Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117

The engine air intake system
[NASA-CASE-ARC-10761-1] c07 N77-18154

Stator rotor tools
[NASA-CASE-MSC-16000-1] c37 N78-24544

JET EXHAUST
Development of aircraft configuration for
reduction of jet aircraft noise by exhausting
engine gases over upper surface of wing
[NASA-CASE-LAR-11087-1] c02 N73-26008

Jet exhaust noise suppressor
[NASA-CASE-LEW-11286-1] c07 N74-27490

Reduction of nitric oxide emissions from a
combustor
[NASA-CASE-ARC-10814-2] c25 N77-31260

Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089

JET FLAPS
Upper surface, external flow, jet-augmented flap
configuration for high wing jet aircraft for
noise reduction
[NASA-CASE-XLA-00087] c02 N70-33332

JET FLOW
Two-phase flow system with discrete, impinging
two-phase jets
[NASA-CASE-NPO-11556] c12 N72-25292

JET MIXING FLOW
Fuel injection system for maximum combustion
efficiency of rocket engines
[NASA-CASE-XLE-00111] c28 N70-38199

JET NOZZLES
Fluid jet amplifier with fluid from jet nozzle
deflected by inlet pressure
[NASA-CASE-XLE-03512] c12 N69-21466

Thrust and attitude control apparatus using jet
nozzle in movable canard surface or fin
configuration
[NASA-CASE-XLE-03583] c31 N71-17629

Heater-mixer for stored fluids
[NASA-CASE-ARC-10442-1] c35 N74-15093

JET PROPULSION
Two dimensional wedge/translating shroud nozzle
[NASA-CASE-LAR-11919-1] c07 N78-27121

JET THRUST
System for aerodynamic control of rocket
vehicles by secondary injection of fluid into
nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582

Drive mechanism for operating reactance attitude
control system for aerospace bodies
[NASA-CASE-IMP-01598] c21 N71-15583

JETTISON SYSTEMS
Describing assembly for opening stabilizing and
decelerating flaps of flight capsules used in
space research
[NASA-CASE-IMP-03169] c31 N71-15675

System for deploying and ejecting releasable
clawshell fairing sections from spinning
sounding rockets
[NASA-CASE-GSC-10590-1] c31 N73-14853

JIGS
Apparatus for positioning modular components on
a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554

Solar cell module assembly jig
[NASA-CASE-IGS-00829-1] c44 N79-19447

JOINING
Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-3] c07 N79-14096

JOINTS (ANATOMY)
Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194

Equipotential space suits utilizing mechanical
aids to minimize astronaut energy at bending
joints
[NASA-CASE-LAR-10007-1] c05 N71-11195

Cord restraint system for pressure suit joints
[NASA-CASE-IMP-09635] c05 N71-24623

Orthotic arm joint --- for use in mechanical arms
[NASA-CASE-MPS-21611-1] c54 N75-12616

Rotational joint assembly for the prosthetic leg
[NASA-CASE-KSC-11004-1] c54 N77-30749

SUBJECT INDEX

LACQUERS

Spacesuit mobility joints
[NASA-CASE-ARC-11058-2] c54 N78-18763

A prosthesis coupling
[NASA-CASE-KSC-11069-1] c54 N78-22721

JOINTS (JUNCTIONS)

Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542

Elastic universal joint for rocket motor mounting
[NASA-CASE-XNP-00416] c15 N70-36947

Portable device for aligning surfaces of two adjacent wall or sheet sections for joining at point of junction
[NASA-CASE-XNP-01452] c15 N70-41371

Design and development of flexible joint for pressure suits
[NASA-CASE-XMS-09636] c05 N71-12344

Elbow forming in jacketed pipes while maintaining separation between core shape and jacket pipes
[NASA-CASE-XNP-10475] c15 N71-24679

Method and apparatus for precision sizing and joining of large diameter tubes by bulging or constricting overlapping ends
[NASA-CASE-XNP-05114-2] c15 N71-26148

Universal joints for connecting two displaced shafts or members
[NASA-CASE-NPO-10646] c15 N71-28467

Flexible bellows joint shielding sleeve for propellant transfer pipelines
[NASA-CASE-XNP-01855] c15 N71-28937

Mechanism for restraining universal joints to prevent separation while allowing bending, angulation, and lateral offset in any position about axis
[NASA-CASE-XNP-02278] c15 N71-28951

Diffusion welding in air --- solid state welding of butt joint by fusion welding, surface cleaning, and heating
[NASA-CASE-XNP-11387-1] c37 N74-18128

Bonded joint and method --- for reducing peak shear stress in adhesive bonds
[NASA-CASE-LAR-10900-1] c37 N74-23064

Flexible joint for pressurizable garment
[NASA-CASE-HSC-11072] c54 N74-32546

Method of making an explosively welded scarf joint
[NASA-CASE-LAR-11211-1] c37 N75-12326

Latching device
[NASA-CASE-NPS-21606-1] c37 N75-19685

Method of determining bond quality of power transistors attached to substrates --- X ray inspection of junction microstructure
[NASA-CASE-NPS-21931-1] c37 N75-26372

Externally supported internally stabilized flexible duct joint
[NASA-CASE-NPS-19194-1] c37 N76-14460

Wrist joint assembly
[NASA-CASE-NPS-23311-1] c54 N78-17676

A tool for use in joining connectors to shielded cables
[NASA-CASE-NPO-14296-1] c37 N78-25432

Spacesuit mobility joints
[NASA-CASE-ARC-11058-1] c54 N78-31735

JOSEPHSON JUNCTIONS

Doped Josephson tunneling junction for use in a sensitive IR detector
[NASA-CASE-NPO-13348-1] c33 N75-31332

JOULE-THOMSON EFFECT

Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
[NASA-CASE-NPO-10309] c15 N69-23190

JOURNAL BEARINGS

Slit regulated gas journal bearing
[NASA-CASE-XNP-00476] c15 N70-38620

Journal air bearing with cylindrical cup designed to ride on shaft
[NASA-CASE-NPS-20423] c15 N72-11388

Journal bearings --- for lubricant films
[NASA-CASE-XLE-11076-1] c37 N74-21061

Journal Bearings
[NASA-CASE-XLE-11076-2] c37 N74-32921

Lubricated journal bearing
[NASA-CASE-XLE-11076-3] c37 N75-30562

Fluid journal bearings
[NASA-CASE-XLE-11076-4] c37 N76-15461

JUNCTION DIODES

Phototransistor with base collector junction diode for integration into photo sensor arrays

[NASA-CASE-NPS-20407] c09 N73-19235

Diode-gate bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041

Charge storage diode modulators and demodulators
[NASA-CASE-NPO-10189-1] c33 N77-21314

JUNCTION TRANSISTORS

Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318

Miniature piezjunction semiconductor transducer with in situ stress coupling
[NASA-CASE-ERC-10087-2] c14 N72-31446

Method of determining bond quality of power transistors attached to substrates --- X ray inspection of junction microstructure
[NASA-CASE-NPS-21931-1] c37 N75-26372

K

KEYING

High-speed multiplexing of keyboard data inputs
[NASA-CASE-NPO-14554-1] c60 N79-14797

KIDNEY DISEASES

Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NPO-13620-1] c27 N77-30236

KINETIC ENERGY

Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-34861

Method and turbine for extracting kinetic energy from a stream of two-phase fluid
[NASA-CASE-NPO-14130-1] c34 N79-20335

KINETIC FRICTION

Kinetic and static friction force measurement between magnetic tape and magnetic head surfaces
[NASA-CASE-XNP-08680] c14 N71-22995

KINETICS

Micrometeoroid analyzer using arrays of interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N73-20477

KRAFT PROCESS (WOODPULP)

Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

L

LABORATORY EQUIPMENT

Design of mechanical device for stirring several test tubes simultaneously
[NASA-CASE-XAC-06956] c15 N71-21177

Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080

Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372

Development of variable angle device for positioning test tubes to permit optimum drying of culture medium
[NASA-CASE-LAR-10507-1] c11 N72-25284

Development of method for controlling vapor content of gas
[NASA-CASE-NPO-10633] c03 N72-28025

Apparatus for mixing two or more liquids under zero gravity conditions
[NASA-CASE-LAR-10195-1] c15 N73-19458

Automatic real-time pair-feeding system for animals
[NASA-CASE-ARC-10302-1] c51 N74-15778

Automated single-slide staining device
[NASA-CASE-LAR-11649-1] c51 N77-27677

Machine for use in monitoring fatigue life for a plurality of elastomeric specimens
[NASA-CASE-NPO-13731-1] c39 N78-10493

The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols
[NASA-CASE-GSC-12088-1] c74 N78-13874

Automatic multiple-sample applicator and electrophoresis apparatus
[NASA-CASE-ARC-10991-1] c25 N78-14104

Microelectrophoretic apparatus and process
[NASA-CASE-ARC-11121-1] c25 N79-14169

LACQUERS

Method for applying photographic resists to otherwise incompatible substrates
[NASA-CASE-HSC-18107-1] c35 N79-19319

LAMINAR FLOW

SUBJECT INDEX

LAMINAR FLOW

Laminar flow of liquid coolants in rocket engines
[NASA-CASE-NPO-10122] c12 N71-17631
Detection of the transitional layer between
laminar and turbulent flow areas on a wing
surface --- using an accelerometer to measure
noise levels during wind tunnel tests
[NASA-CASE-LAR-12261-1] c02 N79-16805

LAMINATES

Multilayer porous refractory metal ionizer
design with thick, porous, large-grain
substrates and thin, porous micron-grain
substrates
[NASA-CASE-XNP-04338] c17 N71-23046
Development and characteristics of polyimide
impregnated laminates with fiberglass cloth
backing for application as printed circuit
boards
[NASA-CASE-MFS-20408] c18 N73-12604
Development of composite structures for
spacecraft to serve as anti-meteoroid device
[NASA-CASE-LAR-10788-1] c31 N73-20880
Reinforced polyquinoxaline gasket and method of
preparing the same --- resistant to ionizing
radiation and liquid hydrogen temperatures
[NASA-CASE-MFS-21364-1] c37 N74-18126
Method of laminating structural members
[NASA-CASE-XLA-11028-1] c24 N74-27035
Bonding method in the manufacture of continuous
regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260
Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230
Leading edge protection for composite blades
[NASA-CASE-LEW-12550-1] c24 N77-19170
Hybrid composite laminate structures
[NASA-CASE-LEW-12118-1] c24 N77-27188
Honeycomb-laminate composite structure
[NASA-CASE-ARC-10913-1] c24 N78-15180
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150
Method for alleviating thermal stress damage in
laminates
[NASA-CASE-LEW-12493-1] c24 N78-22163
Lightweight electrically-powered flexible
thermal laminate --- made of metal and
nonconductive yarns
[NASA-CASE-MSC-12662-1] c33 N79-12331

LANDING AIDS

Electro-optical attitude sensing device for
landing approach of flight vehicle
[NASA-CASE-XMS-01994-1] c14 N72-17326
Magnetic method for detection of aircraft
position relative to runway
[NASA-CASE-ARC-10179-1] c21 N72-22619
Full color hybrid display for aircraft simulators
--- landing aids
[NASA-CASE-ARC-10903-1] c09 N78-18083

LANDING GEAR

Pivotal shock absorbing assembly for use as load
distributing portion in landing gear systems
of space vehicles
[NASA-CASE-XNP-03856] c31 N70-34159
Nose gear steering system for vehicles with main
skids to provide directional stability after
loss of aerodynamic control
[NASA-CASE-XLA-01804] c02 N70-34160
Landing pad assembly for aerospace vehicles
[NASA-CASE-XNP-02853] c31 N70-36654
Aircraft wheel spray drag alleviator for dual
tandem landing gear
[NASA-CASE-XLA-01583] c02 N70-36825
Spacecraft shock absorbing system for soft
landings
[NASA-CASE-XNP-02108] c31 N70-36845
Shock absorber for landing gear of lunar or
planetary landing modules
[NASA-CASE-XNP-01045] c15 N70-40354
Vertically descending flight vehicle landing
gear for rough terrain
[NASA-CASE-XNP-01174] c02 N70-41589
Crosswind landing gear position indicator
[NASA-CASE-LAR-11941-1] c06 N77-20098

LANDING MODULES

Shock absorber for landing gear of lunar or
planetary landing modules
[NASA-CASE-XNP-01045] c15 N70-40354

LANDING SIMULATION

Lunar and planetary gravity simulator to test

vehicular response to landing
[NASA-CASE-XLA-00493] c11 N70-34786

LANTHANUM COMPOUNDS

Cesium thermionic converters having improved
electrodes
[NASA-CASE-LEW-12038-3] c44 N78-25555

LARGE SPACE TELESCOPE

System for the measurement of ultra-low stray
light levels --- determining the adequacy of
large space telescope systems
[NASA-CASE-MFS-23513-1] c74 N79-11865

LASER APPLICATIONS

High power laser apparatus and system
[NASA-CASE-XLE-2529-2] c36 N75-27364
Fiber distributed feedback laser
[NASA-CASE-NPO-13531-1] c36 N76-24553
Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753
Pseudo-backscatter laser Doppler velocimeter
employing antiparallel-reflector in the
forward direction
[NASA-CASE-ARC-10970-1] c36 N77-25501
Compact pulsed laser having improved heat
conductance
[NASA-CASE-NPO-13147-1] c36 N77-25502
Laser extensometer
[NASA-CASE-MFS-19259-1] c36 N78-14380
Apparatus for extraction and separation of a
preferentially photo-dissociated molecular
isotope into positive and negative ions by
means of an electric field
[NASA-CASE-LEW-12465-1] c25 N78-25148
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N79-18307

LASER DOPPLER VELOCIMETERS

Dual wavelength scanning Doppler velocimeter ---
without perturbation of flow fields
[NASA-CASE-ARC-10637-1] c35 N75-16783
Combined dual scatter, local oscillator laser
Doppler velocimeter
[NASA-CASE-ARC-10642-1] c36 N76-14447
Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493
Pseudo-backscatter laser Doppler velocimeter
employing antiparallel-reflector in the
forward direction
[NASA-CASE-ARC-10970-1] c36 N77-25501
Optical scanner --- laser doppler velocimeters
[NASA-CASE-LAR-11711-1] c74 N78-17866
Laser Doppler velocity simulator
[NASA-CASE-LAR-12176-1] c36 N78-29435
Versatile LDV burst simulator
[NASA-CASE-LAR-11859-1] c35 N79-14349

LASER DRILLING

In-situ laser retorting of oil shale
[NASA-CASE-LEW-12217-1] c43 N78-14452

LASER HEATING

Electric power generation system directory from
laser power
[NASA-CASE-NPO-13308-1] c36 N75-30524

LASER MATERIALS

Laser head for simultaneous optical pumping of
several dye lasers --- with single flash lamp
[NASA-CASE-LAR-11341-1] c36 N75-19655

LASER MODE LOCKING

Laser system with an antiresonant optical ring
[NASA-CASE-HQB-10844-1] c36 N75-19653
Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654
Length controlled stabilized mode-lock Nd:YAG
laser
[NASA-CASE-GSC-11571-1] c36 N77-25499

LASER MODES

Xenon flashlamp driver system for optical laser
pumping
[NASA-CASE-ERC-10283] c16 N72-25485
Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427

LASER OUTPUTS

Method and apparatus using temperature control
for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343
Describing laser Doppler velocimeter for
measuring mean velocity and turbulence of
fluid flow
[NASA-CASE-MFS-20386] c21 N71-19212
Development of apparatus for amplitude
modulation of diode laser by periodic
discharge of direct current power supply

- [NASA-CASE-XHS-04269] c16 N71-22895
Doppler shifted laser beam as fluid velocity sensor
[NASA-CASE-XAC-10770-1] c16 N71-24828
Calibrator for measuring and modulating or demodulating laser outputs
[NASA-CASE-XLA-03410] c16 N71-25914
Method and apparatus for optically modulating light or microwave beam
[NASA-CASE-GSC-10216-1] c23 N71-26722
Laser machining device with dielectric functioning as beam waveguide for mechanical and medical applications
[NASA-CASE-BQN-10541-2] c15 N71-27135
Optical communication system with gas filled waveguide for laser beam transmission
[NASA-CASE-BQN-10541-4] c16 N71-27183
Design and development of multichannel laser remote control system using modulated helium-neon laser as transmitter and light collector as receiving antenna
[NASA-CASE-LAR-10311-1] c16 N73-16536
Performance of ac power supply developed for CO2 laser system
[NASA-CASE-GSC-11222-1] c16 N73-32391
Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NPO-11317-2] c36 N74-13205
Apparatus for scanning the surface of a cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009
Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425
Clear air turbulence detector
[NASA-CASE-NFS-21244-1] c36 N75-15028
Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654
Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp
[NASA-CASE-LAB-11341-1] c36 N75-19655
Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427
Optical noise suppression device and method --- laser light exposing film
[NASA-CASE-MSC-12640-1] c74 N76-31998
Length controlled stabilized mode-lock Nd:YAG laser
[NASA-CASE-GSC-11571-1] c36 N77-25499
Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255
- LASER PLASMAS**
Continuous plasma laser --- method and apparatus for producing intense, coherent, monochromatic light from low temperature plasma
[NASA-CASE-XNP-04167-3] c36 N77-19416
Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-NFS-22517-1] c36 N79-21333
- LASER PUMPING**
A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445
- LASER RANGER/TRACKER**
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
- LASER WINDOWS**
Optical scanner --- laser doppler velocimeters
[NASA-CASE-LAR-11711-1] c74 N78-17866
- LASEES**
Laser device for removing material from rotating object for dynamic balancing
[NASA-CASE-NFS-11279] c16 N71-20400
Design and development of optical interferometer with laser light source for application to schlieren systems
[NASA-CASE-XLA-04295] c16 N71-24170
Self-generating optical frequency waveguide
[NASA-CASE-BQN-10541-1] c07 N71-26291
Design and characteristics of laser camera system with diffusion filter of small particles with average diameter larger than wavelength of laser light
[NASA-CASE-NPO-10417] c16 N71-33410
Nondestructive stress testing of solder joints on printed circuit boards by holographic techniques
[NASA-CASE-NFS-20687] c16 N72-11415
- Optical sensing of supersonic flows by correlating deflections in laser beams through flow
[NASA-CASE-NFS-20642] c14 N72-21407
Laser technique for breaking ice in ship path
[NASA-CASE-LAR-10815-1] c16 N72-22520
Design of precision vertical alignment system using laser with gravitationally sensitive cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397
Tunable cavity resonator with ramp shaped supports
[NASA-CASE-BQN-10790-1] c36 N74-11313
Short range laser obstacle detector --- for surface vehicles using laser diode array
[NASA-CASE-NPO-11856-1] c36 N74-15145
Long range laser traversing system
[NASA-CASE-GSC-11262-1] c36 N74-21091
Deep trap, laser activated image converting system
[NASA-CASE-NPO-13131-1] c36 N75-19652
Laser system with an antiresonant optical ring
[NASA-CASE-BQN-10844-1] c36 N75-19653
Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427
Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575
Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053
Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942
Wideband heterodyne receiver for laser communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346
Shock isolator for operating a diode laser and closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515
Method and apparatus for splitting a beam of energy --- optical communication
[NASA-CASE-GSC-12083-1] c73 N78-32848
- LATCHES**
Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XHS-04935] c05 N71-11190
Quick disconnect latch and handle combination for mounting articles on walls or supporting bases in spacecraft under zero gravity conditions
[NASA-CASE-NFS-11132] c15 N71-17649
Design, development, and characteristics of latching mechanism for operation in limited access areas
[NASA-CASE-XHS-03745] c15 N71-21076
Latching mechanism with pivoting catch and self-contained spring ejector
[NASA-CASE-XLA-03538] c15 N71-24897
Latch for fastening spacecraft docking rings
[NASA-CASE-MSC-15474-1] c15 N71-26162
Latch mechanism
[NASA-CASE-MSC-12549-1] c37 N74-27903
Latching device
[NASA-CASE-NFS-21606-1] c37 N75-19685
Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499
Helmet latching and attaching ring
[NASA-CASE-XHS-04670] c54 N78-17678
- LATERAL CONTROL**
Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-XAC-01404] c05 N70-41581
Star sensor system for roll attitude control of spacecraft
[NASA-CASE-XNP-01307] c21 N70-41856
Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088
Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N79-14108
- LATEX**
Process for preparation of large-particle size monodisperse latexes
[NASA-CASE-NFS-25000-1] c25 N79-14171

LATHES

SUBJECT INDEX

LATHES

Rotary spindle lathe attachments for machining geometrical cones
[NASA-CASE-XHS-04292] c15 N71-22722

Lathe tool and holder combination for machining resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489

LAUNCH ESCAPE SYSTEMS

Emergency escape cabin system for launch towers
[NASA-CASE-XKS-02342] c05 N71-11199

Ejector for separating astronaut from ejection seat during prelaunch or initial launch phase of flight
[NASA-CASE-XHS-04625] c05 N71-20718

LAUNCH VEHICLE CONFIGURATIONS

Rotating launch device for a remotely piloted aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076

LAUNCH VEHICLES

Support techniques for restraint of slender bodies such as launch vehicles
[NASA-CASE-XLA-02704] c11 N69-21540

Microleak detector mounted on weld seam of propellant tank of launch vehicle
[NASA-CASE-XMF-02307] c14 N71-10779

Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120

LAUNCHING PADS

Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-XMF-03198] c30 N70-40353

Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
[NASA-CASE-XLA-01396] c03 N71-12259

Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292

LAYERS

Atomic hydrogen storage method and apparatus
[NASA-CASE-LRW-12081-1] c28 N78-24365

LEACHING

Process for the leaching of AP from propellant
[NASA-CASE-NPO-14109-1] c28 N79-10227

LEAD (METAL)

Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-NFS-23059-1] c44 N76-27664

LEAD TELLURIDES

Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes
[NASA-CASE-IGS-04554] c15 N69-39786

Procedure for segmenting lead telluride and silicon germanium thermoelectric elements to obtain composite elements effective over wide temperature range
[NASA-CASE-IGS-05718] c26 N71-16037

LEADING EDGES

Leading edge design for hypersonic reentry vehicles
[NASA-CASE-XLA-00165] c31 N70-33242

Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
[NASA-CASE-XLA-01486] c01 N71-23497

Leading edge protection for composite blades
[NASA-CASE-LEW-12550-1] c24 N77-19170

LEAKAGE

Rocket chamber leak test fixture using tubular plug
[NASA-CASE-IFR-09479] c14 N69-27503

Microleak detector mounted on weld seam of propellant tank of launch vehicle
[NASA-CASE-XMF-02307] c14 N71-10779

Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573

Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161

Development of apparatus and method for testing leakage of large tanks
[NASA-CASE-XMF-02392] c32 N71-24285

Gas leak detection in evacuated systems using ultraviolet radiation probe
[NASA-CASE-ERC-10034] c15 N71-24896

Method for locating leaks in hermetically sealed containers
[NASA-CASE-ERC-10045] c15 N71-24910

Volume displacement transducer for leak detection in hermetically sealed semiconductor devices
[NASA-CASE-ERC-10033] c14 N71-26672

Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992

Leak detector
[NASA-CASE-NFS-21761-1] c35 N75-15931

Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612

Low heat leak connector for cryogenic system
[NASA-CASE-XLE-02367-1] c31 N79-21225

LEG (ANATOMY)

Actuator device for artificial leg
[NASA-CASE-NFS-23225-1] c52 N77-14735

Rotational joint assembly for the prosthetic leg
[NASA-CASE-KSC-11004-1] c54 N77-30749

Mechanical energy storage device for hip disarticulation
[NASA-CASE-ARC-10916-1] c52 N78-10686

LENS DESIGN

Chromatically corrected virtual image display --- lens design for flight simulators
[NASA-CASE-LAR-12251-1] c74 N79-14892

LENSES

Lens assembly for solar furnace or solar simulator
[NASA-CASE-XNP-04111] c14 N71-15622

Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-XMF-03844-1] c14 N71-26474

Development and characteristics of Petzval type objective including field shaping lens for focusing light of specified wavelength band on curved photoreceptor
[NASA-CASE-GSC-10700] c23 N71-30027

Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects
[NASA-CASE-GSC-11133-1] c23 N72-11568

Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-MSC-12448-1] c14 N72-20394

Plural beam antenna with parabolic reflectors
[NASA-CASE-GSC-11013-1] c09 N73-19234

Spatial filter for Q-switched lasers
[NASA-CASE-LEW-12164-1] c36 N77-32478

Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses
[NASA-CASE-ARC-11039-1] c74 N78-32854

Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683

LENTICULAR BODIES

Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-IGS-00260] c31 N70-37924

LEVEL (HORIZONTAL)

Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802

Rotary leveling base platform
[NASA-CASE-ARC-10981-1] c37 N78-27425

LEVEL (QUANTITY)

Gauge for measuring quantity of liquid in spherical tank in reduced gravity
[NASA-CASE-XHS-06236] c14 N71-21007

Conversion of positive dc voltage to positive dc voltage of lower amplitude
[NASA-CASE-XMF-14301] c09 N71-23188

LEVELING

Development of adjustable attitude guide block for setting pins perpendicular to irregular convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571

Electrical switching device comprising conductive liquid confined within square loop

SUBJECT INDEX

LIGHT MODULATION

- of deformable nonconductive tubing also used for leveling
[NASA-CASE-NPO-10037] c09 N71-19610
- Adjustable support device with jacket screw for altering distance between base and supported member
[NASA-CASE-NPO-10721] c15 N72-27484
- Automatically operable self-leveling load table
[NASA-CASE-NFS-22039-1] c09 N75-12968
- LIFE (DURABILITY)**
Hollow rolling element bearings
[NASA-CASE-LEW-11087-3] c37 N74-21064
- LIFE DETECTORS**
Use of enzyme hexokinase and glucose to reduce inherent light levels of ATP in luciferase compositions
[NASA-CASE-XGS-05533] c04 N69-27487
- Describing method for lyophilization of luciferase containing mixtures for use in life detection reactions
[NASA-CASE-XGS-05532] c06 N71-17705
- LIFE RAFTS**
Design of inflatable life raft for aircrafts and boats
[NASA-CASE-XMS-00863] c05 N70-34857
- Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
[NASA-CASE-NSC-12393-1] c02 N73-26006
- Modification of one man life raft
[NASA-CASE-LAR-10241-1] c54 N74-14845
- LIFE SUPPORT SYSTEMS**
Shock absorbing couch for body support under high acceleration or deceleration forces
[NASA-CASE-XMS-01240] c05 N70-35152
- Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
- Design and development of flexible tunnel for use by spacecrews in performing extravehicular activities
[NASA-CASE-NSC-12243-1] c05 N71-24728
- Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque
[NASA-CASE-XMS-09637-1] c05 N71-24730
- Development and characteristics of inflatable structure to provide escape from orbit for spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851
- Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
- Open loop life support subsystem using breathing bag as reservoir for EVA
[NASA-CASE-NSC-12411-1] c05 N72-20096
- Device for removing air from water for use in life support systems in manned space flight
[NASA-CASE-XLA-8914] c15 N73-12492
- Intra- and extravehicular life support space suite for Apollo astronauts
[NASA-CASE-NSC-12609-1] c05 N73-32012
- Catalyst cartridge for carbon dioxide reduction unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
- Helmet feedport
[NASA-CASE-XMS-09653] c54 N78-17680
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit
[NASA-CASE-ARC-11059-1] c54 N78-32721
- Protective garment ventilation system
[NASA-CASE-XMS-04928-1] c54 N79-21765
- LIFT DEVICES**
Device for handling heavy loads by distributing forces
[NASA-CASE-IXP-04969] c11 N69-27466
- Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-IXP-00389] c31 N70-34176
- Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
- Development of auxiliary lifting system to provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257
- High lift aircraft --- with improved stability, control, performance, and noise characteristics.
[NASA-CASE-LAR-11252-1] c05 N75-25914
- Device for installing rocket engines
[NASA-CASE-NFS-19220-1] c20 N76-22296
- Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N79-14108
- LIFT DRAG RATIO**
Design of ring wing vehicle of high drag-to-weight ratio to withstand reentry stress into low density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315
- LIFTING BODIES**
Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-IXP-00389] c31 N70-34176
- Graphic illustration of lifting body design
[NASA-CASE-FRC-10063] c01 N71-12217
- Static force balancing system attached to lifting body
[NASA-CASE-LAR-10348-1] c11 N73-12264
- LIFTING REENTRY VEHICLES**
Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere
[NASA-CASE-XGS-00260] c31 N70-37924
- Variable geometry manned orbital vehicle having high aerodynamic efficiency over wide speed range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674
- Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-XAC-02058] c02 N71-16087
- LIGHT (VISIBLE RADIATION)**
Light baffle with oblate hemispheroid surface and shading flange
[NASA-CASE-NPO-10337] c14 N71-15604
- Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
- Device for detection of combustion light preceding gaseous explosions
[NASA-CASE-LAR-10739-1] c14 N73-16484
- LIGHT AIRCRAFT**
Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110
- LIGHT BEAMS**
Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
[NASA-CASE-XGS-08269] c23 N71-26206
- Development and characteristics of optical communications system based on modulation of light beams
[NASA-CASE-XLA-01090] c16 N71-28963
- Multiple pattern holographic information storage and readout system
[NASA-CASE-ERC-10151] c16 N71-29131
- Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683
- LIGHT GAS GUNS**
Implosion driven, light gas, hypervelocity gun
[NASA-CASE-XAC-05902] c11 N71-18578
- LIGHT MODULATION**
Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605
- Modulating and controlling intensity of light beam from high temperature source by servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
- Method and apparatus for optically modulating light or microwave beam
[NASA-CASE-GSC-10216-1] c23 N71-26722
- Development and characteristics of optical communications system based on modulation of light beams
[NASA-CASE-XLA-01090] c16 N71-28963
- Lamp modulator for generating visual indication of presence and magnitude of signal
[NASA-CASE-KSC-10565] c09 N72-25250
- Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053

LIGHT SCATTERING

SUBJECT INDEX

LIGHT SCATTERING

Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
 [NASA-CASE-NPO-13756-1] c35 N76-14434
 The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols
 [NASA-CASE-GSC-12088-1] c74 N78-13874

LIGHT SCATTERING METERS

System for the measurement of ultra-low stray light levels --- determining the adequacy of large space telescope systems
 [NASA-CASE-NPS-23513-1] c74 N79-11865

LIGHT SOURCES

Light radiation direction indicator with baffle of two parallel grids
 [NASA-CASE-INP-03930] c14 N69-24331
 High intensity heat and light unit containing quartz lamp elements protectively positioned to withstand severe environmental stress
 [NASA-CASE-XLA-00141] c09 N70-33312
 Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude
 [NASA-CASE-INP-00438] c21 N70-35089
 Electro-optical detector for determining position of light source
 [NASA-CASE-INP-01059] c23 N71-21821
 Optical system for selecting particular wavelength light beams from multiple wavelength light source
 [NASA-CASE-ERC-10248] c14 N72-17323
 Electro-optical stabilization of calibrated light source
 [NASA-CASE-HSC-12293-1] c14 N72-27411
 Development of temperature compensated light source with components and circuitry for maintaining luminous intensity independent of temperature variations
 [NASA-CASE-ABC-10467-1] c09 N73-14214
 Interferometer prism and control system for precisely determining direction to remote light source
 [NASA-CASE-ABC-10278-1] c14 N73-25463
 Attitude sensor
 [NASA-CASE-LAR-10586-1] c19 N74-15089
 Very high intensity light source using a cathode ray tube --- electron beams
 [NASA-CASE-NRP-01296] c33 N75-27250
 Electric arc light source having undercut recessed anode
 [NASA-CASE-ABC-10266-1] c33 N75-29318
 Uniform variable light source
 [NASA-CASE-NPO-11429-1] c74 N77-21941

LIGHT TRANSMISSION

Hybrid holographic system using reference, transmitted, and reflected beams simultaneously
 [NASA-CASE-NPS-20074] c16 N71-15565
 Optical characteristics measuring apparatus
 [NASA-CASE-NRP-08840] c23 N71-16365
 Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
 [NASA-CASE-XKS-03509] c14 N71-23175
 Solar cell panel with light transmitting cover plate
 [NASA-CASE-NPO-10747] c03 N72-22042
 Method and system for transmitting and distributing optical frequency radiation
 [NASA-CASE-HQN-10541-3] c23 N72-23695
 Thin absorbing metallic film for increased visible light transmission
 [NASA-CASE-LAR-10836-1] c26 N72-27784
 Transmitting and reflecting diffuser --- for ultraviolet light
 [NASA-CASE-LAR-10385-2] c70 N74-13436
 Optical instrument employing reticle having preselected visual response pattern formed thereon
 [NASA-CASE-ABC-10976-1] c74 N77-22950
 Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings
 [NASA-CASE-LAR-10385-3] c74 N78-15879

LIGHTING EQUIPMENT

Sealed fluorescent tube light unit capable of connection with other units to form string of work lights

[NASA-CASE-XKS-05932] c09 N71-26787
 Pressurized inert gas feed for lighting system
 [NASA-CASE-KSC-10644] c09 N72-27227
 Remote lightning monitor system
 [NASA-CASE-KSC-11031-1] c33 N79-11315

LIGHTNING

Apparatus for determining distance to lightning strokes from single station by magnetic and electric field sensing antennas
 [NASA-CASE-KSC-10698] c07 N73-20175
 System for locating lightning strokes by coordination of directional antenna signals
 [NASA-CASE-KSC-10729-1] c09 N73-32110
 Monitoring and recording lightning strokes in predetermined area
 [NASA-CASE-KSC-10728-1] c14 N73-32319
 Lightning current measuring systems
 [NASA-CASE-KSC-10807-1] c33 N75-26246
 Lightning current waveform measuring system
 [NASA-CASE-KSC-11018-1] c33 N79-10337
 Lightning current detector
 [NASA-CASE-KSC-11057-1] c33 N79-14305

LINES (ANATOMY)

A prosthesis coupling
 [NASA-CASE-KSC-11069-1] c54 N78-22721

LIMITER CIRCUITS

Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
 [NASA-CASE-XLA-01219] c10 N71-23084
 Circuits for amplitude limiting of random noise inputs
 [NASA-CASE-NPO-10169] c10 N71-24844
 Velocity limiting safety system for motor driven research vehicle
 [NASA-CASE-XLA-07473] c15 N71-24895
 Low level signal limiter
 [NASA-CASE-XLB-04791] c32 N74-22096
 Inrush current limiter
 [NASA-CASE-GSC-11789-1] c33 N77-14333

LINEAR ACCELERATORS

Linear accelerator frequency control system
 [NASA-CASE-XGS-05441] c10 N71-22962

LINEAR ARRAYS

Multispectral imaging and analysis system --- using charge coupled devices and linear arrays
 [NASA-CASE-NPO-13691-1] c43 N79-17288

LINEAR RECEIVERS

Antenna array at focal plane of reflector with coupling network for beam switching
 [NASA-CASE-GSC-10220-1] c07 N71-27233

LINEAR SYSTEMS

Linear three-tap feedback shift register
 [NASA-CASE-NPO-10351] c08 N71-12503
 Family of n-ary linear feedback shift register with binary logic
 [NASA-CASE-NPO-11868] c10 N73-20254

LINEARITY

Semilinear bearing comprising two rows of roller bearings separated by spherical bearings and permitting rotational and translational movement
 [NASA-CASE-XLA-02809] c15 N71-22982
 Mechanical actuator wherein linear motion changes to rotational motion
 [NASA-CASE-XGS-04548] c15 N71-24045

LINKAGES

Development of collapsible nozzle extension for rocket engines
 [NASA-CASE-NPS-11497] c28 N71-16224
 Design and construction of mechanical probe for determining if object is properly secured
 [NASA-CASE-NPS-20760] c14 N72-33377
 Locking redundant link
 [NASA-CASE-LAR-11900-1] c37 N79-14382
 Compensating linkage for main rotor control
 [NASA-CASE-LAR-11797-1] c08 N79-15057

LIQUEFACTION

Ophthalmic liquifaction pump
 [NASA-CASE-LEW-12051-1] c52 N75-33640

LIQUID BEARINGS

Fatigue life of hybrid antifriction bearings at ultrahigh speeds
 [NASA-CASE-LEW-11152-1] c15 N73-32359

LIQUID COOLING

Water cooled contactors for holding rotating carbon arc anode
 [NASA-CASE-XHS-03700] c15 N69-24266
 External device for liquid spray cooling of gas turbine blades

SUBJECT INDEX

LIQUID NITROGEN

[NASA-CASE-XLE-00037] c28 N70-33372
 Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss
 [NASA-CASE-XNP-01951] c09 N70-41929
 Laminar flow of liquid coolants in rocket engines
 [NASA-CASE-NPO-10122] c12 N71-17631
 Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
 [NASA-CASE-XMS-09571] c05 N71-19439
 Electric power system with circulatory liquid coolant cooling system
 [NASA-CASE-MFS-14114-2] c09 N71-24807
 Electric power system with thermionic diodes and circulatory liquid metal coolant lines
 [NASA-CASE-MFS-14114] c33 N71-27862
 Apparatus for liquid spray cooling of turbine blades
 [NASA-CASE-XLE-00027] c33 N71-29152
 Automatic control device for regulating inlet water temperature of liquid cooled spacesuit
 [NASA-CASE-MSC-13917-1] c05 N72-15098
 Automatic temperature control for liquid cooled space suit
 [NASA-CASE-ABC-10599-1] c05 N73-26071
 Heat exchanger system and method
 [NASA-CASE-LAR-10799-2] c34 N76-17317
 Liquid cooled brassiere and method of diagnosing malignant tumors therewith
 [NASA-CASE-ARC-11007-1] c52 N77-14736
 Closed loop spray cooling apparatus for particle accelerator targets
 [NASA-CASE-LEW-11981-1] c31 N78-17237
 Low cost cryostat
 [NASA-CASE-NPO-14513-1] c31 N79-20283
LIQUID CRYSTALS
 Development of combined velocimeter and accelerometer based on color changes in liquid crystalline material subjected to shear stresses
 [NASA-CASE-ERC-10292] c14 N72-25410
 Input signal measurement using liquid crystalline elements
 [NASA-CASE-ERC-10275] c26 N72-25680
 Real time liquid crystal image converter
 [NASA-CASE-LAR-11206-1] c74 N74-30118
LIQUID FILLED SHELLS
 Liquid rocket systems for propulsion and control of spacecraft
 [NASA-CASE-XNP-00610] c28 N70-36910
 Design and development of fluid sample collector
 [NASA-CASE-XMS-06767-1] c14 N71-20435
 Manufacture of fluid containers from fused coated polyester sheets having resealable septum
 [NASA-CASE-NPO-10123] c15 N71-24835
 Omnidirectional liquid filled accelerometer design with liquid and housing temperature compensation
 [NASA-CASE-BQN-10788] c14 N71-30265
LIQUID FLOW
 Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
 [NASA-CASE-XLE-02624] c12 N69-39988
 Liquid junction for glass electrode or pH meters
 [NASA-CASE-NPO-10682] c15 N70-34699
 Actuator using compressed gas as driving force to control valve handling large liquid flows
 [NASA-CASE-XHQ-01208] c15 N70-35409
 Two component valve assembly for cryogenic liquid transfer regulation
 [NASA-CASE-XLE-00397] c15 N70-36492
 Positive displacement flowmeter for measuring extremely low flows of fluid with self calibrating features
 [NASA-CASE-XNP-02822] c14 N70-41994
 High pressure liquid flow sight assembly for wide temperature range applications including cryogenic fluids
 [NASA-CASE-XLE-02998] c14 N70-42074
 Carrier liquid system containing bodies of ablative material
 [NASA-CASE-LEW-10359-2] c33 N73-25952
 Zero gravity liquid transfer device, using spiral shaped screen
 [NASA-CASE-KSC-10626] c14 N73-27378
 System for measuring Reynolds in a turbulently flowing fluid --- signal processing
 [NASA-CASE-ARC-10755-2] c34 N76-27517

LIQUID HELIUM
 Heat operated cryogenic electrical generator
 [NASA-CASE-NPO-13303-1] c20 N75-24837
 Helium refrigerator
 [NASA-CASE-NPO-13435-1] c31 N76-14284
 Cryostat system for temperatures on the order of 2 deg K or less
 [NASA-CASE-NPO-13459-1] c31 N77-10229
 Multistation refrigeration system
 [NASA-CASE-NPO-13839-1] c31 N78-25256
 Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
 [NASA-CASE-NPO-13993-1] c72 N79-13826
 Low cost cryostat
 [NASA-CASE-NPO-14513-1] c31 N79-20283
LIQUID HYDROGEN
 Development of thermal insulation material for insulating liquid hydrogen tanks in spacecraft
 [NASA-CASE-XNP-05046] c33 N71-28892
 Reinforced polyquinoxaline gasket and method of preparing the same --- resistant to ionizing radiation and liquid hydrogen temperatures
 [NASA-CASE-MFS-21364-1] c37 N74-18126
LIQUID INJECTION
 Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
 [NASA-CASE-XLE-00208] c28 N70-34294
 System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
 [NASA-CASE-XLA-01163] c21 N71-15582
 Propellant injection assembly having individually removable and replaceable nozzles for liquid fueled rocket engines
 [NASA-CASE-XNP-00968] c28 N71-15660
 A sodium storage and injection system
 [NASA-CASE-NPO-14384-1] c25 N78-22187
LIQUID LASERS
 Method and apparatus using temperature control for wavelength tuning of liquid lasers
 [NASA-CASE-ERC-10187] c16 N69-31343
LIQUID LEVELS
 Inductive liquid level detection system
 [NASA-CASE-XLE-01609] c14 N71-10500
LIQUID METALS
 Magneto-hydrodynamic generator for mixing nonconductive gas and liquid metal mist to form slugs
 [NASA-CASE-XLE-02083] c03 N69-39983
 Thermoelectric power conversion by liquid metal flowing through magnetic field
 [NASA-CASE-XNP-00644] c03 N70-36803
 Analytical test apparatus and method for determining oxygen content in alkali liquid metal
 [NASA-CASE-XLE-01997] c06 N71-23527
 Electric power system with thermionic diodes and circulatory liquid metal coolant lines
 [NASA-CASE-MFS-14114] c33 N71-27862
 Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
 [NASA-CASE-XNP-08881] c17 N71-28747
 Shell-side liquid metal boiler employing tube and shell heat exchanger
 [NASA-CASE-NPO-10831] c33 N72-20915
 U shaped heated tube for distillation and purification of liquid metals
 [NASA-CASE-XNP-08124-2] c06 N73-13129
 Electromagnetic flow rate meter --- for liquid metals
 [NASA-CASE-LEW-10981-1] c35 N74-21018
 Process for preparing liquid metal electrical contact device
 [NASA-CASE-LEW-11978-1] c33 N77-26385
 Liquid metal slip ring
 [NASA-CASE-LEW-12277-2] c33 N78-25323
LIQUID NEON
 Soft X-ray laser using crystal channels as distributed feedback cavities
 [NASA-CASE-NPO-13532-2] c36 N78-25409
LIQUID NITROGEN
 Transferring liquid nitrogen through vacuum chamber to cryopanel
 [NASA-CASE-LAR-10031] c15 N72-22484

LIQUID OXYGEN

SUBJECT INDEX

LIQUID OXYGEN

Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
[NASA-CASE-XNP-02221] c18 N71-27170

LIQUID PHASES

Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635
Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-XNP-07659] c06 N71-22975
Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199
Cryogenic liquid sensor
[NASA-CASE-NPO-10619-1] c35 N77-21393
Liquid reactant feeder for arc assisted metal reduction reactor
[NASA-CASE-NPO-14382-1] c25 N78-22186

LIQUID PROPELLANT ROCKET ENGINES

High thrust annular liquid propellant rocket engine and exhaust nozzle design
[NASA-CASE-XLE-00078] c28 N70-33284
Attitude and propellant flow control system for liquid propellant rocket vehicles
[NASA-CASE-XNP-00185] c21 N70-34539
Injector manifold assembly for bipropellant rocket engines providing for fuel propellant to serve as coolant
[NASA-CASE-XNP-00148] c28 N70-38710
Collapsible auxiliary tank for restarting liquid propellant rocket motors under zero gravity
[NASA-CASE-XNP-01390] c28 N70-41275
Rocket propellant injector with porous faceplate for rocket engine combustion chamber
[NASA-CASE-LEW-11071-1] c27 N73-27695
Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502
Space vehicle
[NASA-CASE-NPS-22734-1] c18 N75-19329
Low thrust monopropellant engine --- low temperature environments
[NASA-CASE-GSC-12194-2] c20 N79-15151
Fluid thrust control system --- for liquid propellant rocket engines
[NASA-CASE-XNP-05964-1] c20 N79-21124
Rocket injector head
[NASA-CASE-XNP-04592-1] c20 N79-21125

LIQUID ROCKET PROPELLANTS

Propellant injectors for rocket combustion chambers
[NASA-CASE-XLE-00103] c28 N70-33241
Liquid rocket systems for propulsion and control of spacecraft
[NASA-CASE-XNP-00610] c28 N70-36910
Igniter capsule for chemical ignition of liquid rocket propellants
[NASA-CASE-XLE-00323] c28 N70-38505
High temperature spark plug for igniting liquid rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925
Compact high pressure filter for rocket fuel lines
[NASA-CASE-XNP-00732] c28 N70-41447
Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646
Liquid propellant tank design with semitoroidal bulkhead
[NASA-CASE-XNP-01899] c31 N70-41948
Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635
Control valve and coaxial variable injector for controlling bipropellant mixture ratio and flow
[NASA-CASE-XNP-09702] c15 N71-17654
Slosh and swirl alleviator for liquid propellant tanks during transport and flight
[NASA-CASE-XLA-05749] c15 N71-19569
Filler valve design for supplying liquid propellants at high pressure to space vehicles
[NASA-CASE-XNP-01747] c15 N71-23024
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity

nozzles
[NASA-CASE-NPO-10185] c10 N71-26339
Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
Response analyzing apparatus for liquid vapor interface sensor of sloshing rocket propellant
[NASA-CASE-NPS-11204] c14 N71-29134

LIQUID SLOSHING

Slosh damping method for liquid rocket propellant tanks
[NASA-CASE-XNP-00658] c12 N70-38997
Flexible ring slosh damping baffle for spacecraft fuel tank
[NASA-CASE-LAR-10317-1] c32 N71-16103
Submerged fuel tank baffles to prevent sloshing in liquid propellant rocket flight
[NASA-CASE-XLA-04605] c32 N71-16106
Hot-wire liquid level detector for cryogenic propellants
[NASA-CASE-XLE-00454] c23 N71-17802
Slosh and swirl alleviator for liquid propellant tanks during transport and flight
[NASA-CASE-XLA-05749] c15 N71-19569
Pressure sensor network for measuring liquid dynamic response in flight including fuel tank acceleration, liquid slosh amplitude, and fuel depth monitoring
[NASA-CASE-XLA-05541] c12 N71-26387

LIQUID SODIUM

A sodium storage and injection system
[NASA-CASE-NPO-14384-1] c25 N78-22187

LIQUID-GAS MIXTURES

Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XNS-01624] c15 N70-40062
Absorbent apparatus for separating gas from liquid-gas stream used in environmental control under zero gravity conditions
[NASA-CASE-XNS-01492] c05 N70-41297
Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646
Liquid-gaseous centrifugal separator for weightlessness environment
[NASA-CASE-XLA-00415] c15 N71-16079
Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer
[NASA-CASE-XNP-04042] c15 N71-23023

LIQUID-VAPOR INTERFACES

Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294
Response analyzing apparatus for liquid vapor interface sensor of sloshing rocket propellant
[NASA-CASE-NPS-11204] c14 N71-29134

LIQUIDS

Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XNS-01624] c15 N70-40062
Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing also used for leveling
[NASA-CASE-NPO-10037] c09 N71-19610
Purification apparatus for vaporization and fractional distillation of liquids
[NASA-CASE-XNP-08124] c15 N71-27184
Quantitative liquid measurements in container by resonant frequencies
[NASA-CASE-XNP-02500] c18 N71-27397
Resonant infrasonic gauging device for measuring liquid quantity in closed bladderless reservoir
[NASA-CASE-MSC-11847-1] c14 N72-11363
Ablative system with liquid carrying ablative material bodies and forming self-replacing ablative surface
[NASA-CASE-LEW-10359] c33 N72-25911

SUBJECT INDEX

LOGIC CIRCUITS

- Pressurized tank for feeding liquid waste into processing equipment
[NASA-CASE-LAR-10365-1] c05 N72-27102
- Apparatus for mixing two or more liquids under zero gravity conditions
[NASA-CASE-LAR-10195-1] c15 N73-19458
- Bimetallic fluid displacement apparatus --- for stirring and heating stored gases and liquids
[NASA-CASE-ARC-10441-1] c35 N74-15126
- Method and device for detection of surface discontinuities or defects
[NASA-CASE-MSC-14187-1] c35 N74-32879
- Automatic liquid inventory collecting and dispensing unit
[NASA-CASE-LAR-11071-1] c35 N75-19611
- Thermal energy storage system --- operating on superheating of liquids
[NASA-CASE-MFS-23167-1] c44 N76-31667
- Low gravity phase separator
[NASA-CASE-MSC-14773-1] c35 N78-12390
- Automatic fluid dispenser
[NASA-CASE-ARC-10820-1] c35 N78-19466
- LITHIUM COMPOUNDS**
- Utilization of lithium p-lithiphenoxide to prepare star polymers
[NASA-CASE-NPO-10998-1] c06 N73-32029
- LOAD DISTRIBUTION (FORCES)**
- Force measuring instrument for structural members, particularly fastening bolts or studs
[NASA-CASE-IMP-00456] c14 N70-34705
- Multiple Belleville spring assembly with even load distribution
[NASA-CASE-IMP-00840] c15 N70-38225
- Device for use in loading tension members --- characterized by elongated elastic body
[NASA-CASE-MFS-21488-1] c14 N75-24794
- Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465
- LOAD TESTING MACHINES**
- Load cell protection device using spring-loaded breakaway mechanism
[NASA-CASE-IMS-06782] c32 N71-15974
- Development of device for transferring load from load cell to bypass mechanism
[NASA-CASE-IMS-06329-1] c15 N71-20441
- Method and apparatus for tensile testing of metal foil
[NASA-CASE-LAR-10208-1] c35 N76-18400
- LOAD TESTS**
- Differential pressure cell insensitive to changes in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816
- LOADING OPERATIONS**
- Air bearings for near frictionless transfer of loads from one body to another
[NASA-CASE-IMP-01887] c15 N71-10617
- LOADS (FORCES)**
- Device for handling heavy loads by distributing forces
[NASA-CASE-IMP-04969] c11 N69-27466
- Two plane balance for simultaneous measurements of multiple forces
[NASA-CASE-XAC-00073] c14 N70-34813
- Improving load capacity and fatigue life of rolling element systems in rockets and missiles
[NASA-CASE-XLE-02999] c15 N71-16052
- Development of device for transferring load from load cell to bypass mechanism
[NASA-CASE-IMS-06329-1] c15 N71-20441
- Valve assembly for controlling simultaneously more than one fluid flow, and having stable qualities under loads
[NASA-CASE-IMS-05890] c09 N71-23191
- Solid state force measuring electromechanical transducers made of piezoresistive materials
[NASA-CASE-ERC-10088] c26 N71-25490
- Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531
- Synchronous dc direct-drive system comprising multiple-loop hybrid control system controlling load directly connected to actuator
[NASA-CASE-GSC-10065-1] c10 N71-27136
- Force balanced throttle valve for fuel control in rocket engines
[NASA-CASE-NPO-10808] c15 N71-27432
- Energy absorption device in high precision gear train for protection against damage to components caused by stop loads
[NASA-CASE-IMP-01848] c15 N71-28959
- Air bearing for use in exterior environment for moving heavy loads
[NASA-CASE-WLP-10002] c15 N72-17451
- Penetrometer for empirically determining load-bearing characteristics of inclined surfaces of remotely located bodies of soil
[NASA-CASE-NPO-11103] c14 N72-21406
- Measuring device for bearing preload using spring washers
[NASA-CASE-MFS-20434] c11 N72-25288
- Variable direction force coupler for transmitting force along selectable curve path
[NASA-CASE-MFS-20317] c15 N73-13463
- Versatile ergometer with work load control
[NASA-CASE-MFS-21109-1] c05 N73-27941
- Three-axis adjustable loading structure
[NASA-CASE-PRC-10051-1] c35 N74-13129
- G-load measuring and indicator apparatus --- for aircraft
[NASA-CASE-ARC-10806] c06 N74-27872
- Spring operated accelerator and constant force spring mechanism therefor
[NASA-CASE-ARC-10898-1] c35 N77-18417
- Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367
- Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499
- LOCATES SYSTEM**
- System for locating lightning strokes by coordination of directional antenna signals
[NASA-CASE-KSC-10729-1] c09 N73-32110
- Position determination systems --- using orbital antenna scan of celestial bodies
[NASA-CASE-MSC-12593-1] c17 N76-21250
- LOCKING**
- Releasable coupling device designed to receive and retain matching ends of electrical connectors
[NASA-CASE-IMS-07846-1] c09 N69-21927
- LOCKS (FASTENERS)**
- Ball locking device which releases in response to small forces when subjected to high axial loads
[NASA-CASE-IMP-01371] c15 N70-41829
- Low friction bearing and lock mechanism for two-axis gimbal carrying satellite payload
[NASA-CASE-GSC-10556-1] c31 N71-26537
- Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-IMP-00816] c28 N71-28928
- Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
- Design of quick release locking pin for joining two or more load-carrying structural members
[NASA-CASE-MFS-18495] c15 N72-11385
- Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914
- Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694
- Portable appliance security apparatus
[NASA-CASE-GSC-12399-1] c33 N79-13261
- LOCOMOTION**
- Jet shoes for space locomotion
[NASA-CASE-XLA-08491] c05 N69-21380
- Attitude control training device for astronauts permitting friction-free movement with five degrees of freedom
[NASA-CASE-IMS-02977] c11 N71-10746
- Restraint torso for increased mobility and reduced physiological effects while wearing pressurized suits
[NASA-CASE-MSC-12397-1] c05 N72-25119
- LOGARITHMIC RECEIVERS**
- Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339
- LOGARITHMS**
- Technique for deriving logarithm of input signal using exponentially varying electric signal inversely
[NASA-CASE-ERC-10267] c09 N72-23173
- LOGIC CIRCUITS**
- Selective gold diffusion on monolithic silicon

LOGICAL ELEMENTS

SUBJECT INDEX

chips for switching and nonswitching amplifier devices and circuits and linear and digital logic circuits
[NASA-CASE-ERC-10072] c09 N70-11148

Counter-divisor circuit for accuracy and reliability in binary circuits
[NASA-CASE-XHP-00421] c09 N70-34502

Binary to binary-coded decimal converter using single set of logic circuits notwithstanding number of shift register decades
[NASA-CASE-XHP-00432] c08 N70-35423

Conversion system for increasing resolution of analog to digital converters
[NASA-CASE-XAC-00404] c08 N70-40125

Data processor having multiple sections activated at different times by selective power coupling to sections
[NASA-CASE-IGS-04767] c08 N71-12494

Binary sequence detector with few memory elements and minimized logic circuit complexity
[NASA-CASE-XHP-00415] c08 N71-12505

Bistable multivibrator circuits operating at high speed and low power dissipation
[NASA-CASE-IGS-00823] c10 N71-15910

Logic AND gate for fluid circuits
[NASA-CASE-XLA-07391] c12 N71-17579

Logic circuit to ripple add and subtract binary counters for spaceborne computers
[NASA-CASE-IGS-04766] c08 N71-18602

Constructing Exclusive-Or digital logic circuit in single module
[NASA-CASE-XLA-07732] c08 N71-18751

Stepping motor control apparatus exciting windings in proper time sequence to cause motor to rotate in either direction
[NASA-CASE-GSC-10366-1] c10 N71-18772

Serial digital decoder design with square circuit matrix and serial memory storage units
[NASA-CASE-NPO-10150] c08 N71-24650

Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-IRS-06167] c08 N71-24890

Design and development of multistage current steering switch with inductively coupled magnetic cores
[NASA-CASE-XNP-08567] c09 N71-26000

Logic circuit for generating multibit binary code word in parallel
[NASA-CASE-XNP-04623] c10 N71-26103

Adaptive signal generating system and logic circuits for satellite television systems
[NASA-CASE-GSC-11367] c10 N71-26374

Transistorized switching logic circuits with tunnel diodes
[NASA-CASE-GSC-10878-1] c10 N72-22236

Logical function and circuit generator
[NASA-CASE-XLA-05099] c09 N73-13209

A synchronous binary array divider
[NASA-CASE-ERC-10180-1] c60 N74-20836

Four phase logic systems --- including integrated microcircuits
[NASA-CASE-HSC-14240-1] c33 N75-14957

n interleaving device --- for computer logic circuits used in optical data processing
[NASA-CASE-GSC-12111-2] c60 N77-31800

LOGICAL ELEMENTS

An interleaving device --- for computer logic circuits used in optical data processing
[NASA-CASE-GSC-12111-2] c60 N77-31800

LONGITUDINAL CONTROL

Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-XAC-01404] c05 N70-41581

LOOP ANTENNAS

Collapsible, space erectable loop antenna system for space vehicle
[NASA-CASE-XNP-00437] c07 N70-40202

Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628-1] c07 N73-30113

LOOPS

Tape cartridge with high capacity storage of endless-loop magnetic tape
[NASA-CASE-IGS-00769] c14 N70-41647

Endless loop tape transport mechanism for driving and tensioning recording medium in magnetic tape recorder
[NASA-CASE-IGS-01223] c07 N71-10609

Filter for third order phase locked loops in signal receivers
[NASA-CASE-NPO-11941-1] c10 N73-27171

High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways
[NASA-CASE-ARC-10516-1] c70 N74-21300

Means for accommodating large overstrain in lead wires --- by storing extra length of wire in stretchable loop
[NASA-CASE-LAR-10168-1] c33 N74-22865

Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-2] c34 N79-20336

LOW ASPECT RATIO

Aerospace configuration with low and high aspect ratio variability for high and low speed flight
[NASA-CASE-XLA-00142] c02 N70-33286

Aerodynamic configuration for aircraft capable of high speed flight and low drag for low speed takeoff or landing upon presently existing airfields
[NASA-CASE-XLA-00806] c02 N70-34858

LOW COST

Fabrication of polycrystalline solar cells on low-cost substrates
[NASA-CASE-GSC-12022-1] c44 N76-28635

Low cost solar energy collection system
[NASA-CASE-NPO-13579-3] c44 N77-20566

Process for utilizing low-cost graphite substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609

LOW DENSITY MATERIALS

Method and photodetector device for locating abnormal voids in low density materials
[NASA-CASE-NPS-20044] c14 N71-28993

Intumescent composition, foamed product prepared therewith and process for making same
[NASA-CASE-ARC-10304-2] c27 N74-27037

Mixing insert for foam dispensing apparatus
[NASA-CASE-NPS-20607-1] c37 N76-19436

Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety
[NASA-CASE-ARC-11040-2] c24 N78-27184

Low density bismaleimide-carbon microballoon composites
[NASA-CASE-ARC-11040-1] c24 N79-16915

LOW FREQUENCIES

Determining sway of buildings by low frequency device using pendulum
[NASA-CASE-XNP-00479] c14 N70-34794

LOW GRAVITY MANUFACTURING

Method for manufacturing mirrors in zero gravity environment
[NASA-CASE-HSC-12611-1] c12 N76-15189

LOW MOLECULAR WEIGHTS

Process for preparing high molecular weight polyaryloxysilanes from lower molecular weight forms
[NASA-CASE-XNP-08674] c06 N71-28807

LOW NOISE

Low phase noise frequency divider for use with deep space network communication system
[NASA-CASE-NPO-11569] c10 N73-26229

Reflected-wave maser --- low noise amplifier
[NASA-CASE-NPO-13490-1] c36 N76-31512

Support assembly for cryogenically coolable low-noise choked waveguide
[NASA-CASE-NPO-14253-1] c31 N79-10246

LOW PRESSURE

Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
[NASA-CASE-FRC-10022] c12 N71-26546

LOW SPEED

Variable geometry manned orbital vehicle having high aerodynamic efficiency over wide speed range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674

Device utilizing RC rate generators for continuous slow speed measurement
[NASA-CASE-XNP-02966] c10 N71-24863

LOW TEMPERATURE

Atomic hydrogen storage method and apparatus
[NASA-CASE-LEW-12081-3] c44 N79-18455

LOW TEMPERATURE ENVIRONMENTS

Flexible, frangible electrochemical cell and package for operation in low temperature environment

SUBJECT INDEX

LUNAR SOIL

[NASA-CASE-XGS-10010] c03 N72-15986
 Low thrust monopropellant engine --- low
 temperature environments
 [NASA-CASE-GSC-12194-2] c20 N79-15151
LOW TEMPERATURE TESTS
 Cryostat for flexure fatigue testing of
 composite materials
 [NASA-CASE-XNP-02964] c14 N71-17659
 Cryostat for use with horizontal fatigue testing
 machines at low temperatures
 [NASA-CASE-XNP-10968] c14 N71-24234
LOW THRUST PROPULSION
 Low thrust monopropellant engine --- low
 temperature environments
 [NASA-CASE-GSC-12194-2] c20 N79-15151
LOW VACUUM
 Vibration damping system operating in low vacuum
 environment for spacecraft mechanisms
 [NASA-CASE-XMS-01620] c23 N71-15673
LOW VOLTAGE
 High speed low level voltage commutating switch
 [NASA-CASE-XAC-00060] c09 N70-39915
 Flexible monopole antenna with broad bandwidth
 and low voltage standing wave ratio
 [NASA-CASE-MSC-12101] c09 N71-18720
 Circuit design for failure sensing and
 protecting low voltage electric generator and
 power transmission networks
 [NASA-CASE-GSC-10114-1] c10 N71-27366
LUBRICANTS
 Metallic film diffusion into metal or ceramic
 surfaces for boundary lubrication in aerospace
 environments
 [NASA-CASE-XLE-01765] c18 N71-10772
 Metallic film diffusion for boundary lubrication
 in aerospace engineering
 [NASA-CASE-XLE-10337] c15 N71-24046
 Fluorinated esters of polycarboxylic acid and
 lubricating compositions for use at extreme
 temperature
 [NASA-CASE-MFS-21040-1] c06 N73-30098
 Thiophenyl ether disiloxanes and trisiloxanes
 useful as lubricant fluids
 [NASA-CASE-MFS-22411-1] c37 N74-21058
 Journal bearings --- for lubricant films
 [NASA-CASE-LEW-11076-1] c37 N74-21061
LUBRICATING OILS
 Fluid seal formed by flexible disk on rotating
 shaft to retain lubricating oils around shaft
 [NASA-CASE-XLE-05130-2] c15 N71-19570
LUBRICATION
 Hollow high strength rolling elements for
 antifriction bearings fabricated from
 preformed components
 [NASA-CASE-LEW-11026-1] c15 N73-33383
 Variable resistance constant tension and
 lubrication device --- using oil-saturated
 leather wiper
 [NASA-CASE-KSC-10723-1] c37 N75-13265
 Fluid journal bearings
 [NASA-CASE-LEW-11076-4] c37 N76-15461
LUBRICATION SYSTEMS
 Development of hybrid bearing lubrication system
 with combination of standard type lubrication
 and magnetic flux field for earth atmosphere
 and space environment operation
 [NASA-CASE-XNP-01641] c15 N71-22997
 Lubrication for bearings by capillary action
 from oil reservoir of porous material
 [NASA-CASE-XNP-03972] c15 N71-23048
 Journal Bearings
 [NASA-CASE-LEW-11076-2] c37 N74-32921
 Oil cooling system for a gas turbine engine
 [NASA-CASE-LEW-12321-1] c37 N78-10467
LUMINAIRES
 Visual target luminaires for retrofire attitude
 control
 [NASA-CASE-XMS-12158-1] c31 N69-27499
 Development of ultraviolet resonance lamp with
 improved transmission of radiation
 [NASA-CASE-ARC-10030] c09 N71-12521
 Lamp modulator for generating visual indication
 of presence and magnitude of signal
 [NASA-CASE-KSC-10565] c09 N72-25250
 Electrodeless lamp circuit driven by induction
 [NASA-CASE-MFS-21214-1] c09 N73-30181
 Uniform variable light source
 [NASA-CASE-NPO-11429-1] c74 N77-21941

LUMINOSITY

Mechanism for measuring nanosecond time
 differences between luminous events using
 streak camera

[NASA-CASE-XLA-01987] c23 N71-23976

LUMINOUS INTENSITY

Filter arrangement for controlling light
 intensity in motion picture camera used in
 optical pyrometry
 [NASA-CASE-XLA-00062] c14 N70-33254
 Development of star intensity measuring system
 which minimizes effects of outside interference
 [NASA-CASE-XNP-06510] c14 N71-23797
 Continuous plasma laser --- method and apparatus
 for producing intense, coherent, monochromatic
 light from low temperature plasma
 [NASA-CASE-XNP-04167-3] c36 N77-19416
 Solar cell assembly --- for use under high
 intensity illumination
 [NASA-CASE-LEW-11549-1] c44 N77-19571
 Compact, high intensity arc lamp with internal
 magnetic field producing means
 [NASA-CASE-NPO-11510-1] c33 N77-21315
 System for the measurement of ultra-low stray
 light levels --- determining the adequacy of
 large space telescope systems
 [NASA-CASE-MFS-23513-1] c74 N79-11865

LUNAR BASES

Development and characteristics of natural
 circulation radiator for use with nuclear
 power plants installed in lunar space stations
 [NASA-CASE-XHQ-03673] c33 N71-29046

LUNAR COMMUNICATION

Conversion system for transforming slow scan
 rate of Apollo TV camera on moon to fast scan
 of commercial TV
 [NASA-CASE-XMS-07168] c07 N71-11300
 Three transceiver lunar emergency system to
 relay voice communication of astronaut
 [NASA-CASE-MFS-21042] c07 N72-25171

LUNAR COMPOSITION

Development and characteristics of pentrometer
 for measuring physical properties of lunar
 surface
 [NASA-CASE-XLA-00934] c14 N71-22765

LUNAR EXPLORATION

Backpack carrier with retractable legs suitable
 for lunar exploration and convertible to
 rescue vehicle
 [NASA-CASE-LAR-10056] c05 N71-12351
 Development and characteristics of pentrometer
 for measuring physical properties of lunar
 surface
 [NASA-CASE-XLA-00934] c14 N71-22765
 Lightweight propulsion unit for movement of
 personnel and equipment across lunar surface
 [NASA-CASE-MFS-20130] c28 N71-27585
 Three transceiver lunar emergency system to
 relay voice communication of astronaut
 [NASA-CASE-MFS-21042] c07 N72-25171

LUNAR GRAVITATION

Apparatus for training astronaut crews to
 perform on simulated lunar surface under
 conditions of lunar gravity
 [NASA-CASE-XMS-04798] c11 N71-21474

LUNAR GRAVITY SIMULATOR

Lunar and planetary gravity simulator to test
 vehicular response to landing
 [NASA-CASE-XLA-00493] c11 N70-34786

LUNAR LANDING

Lunar landing flight research vehicle
 [NASA-CASE-IFR-00929] c31 N70-34966

LUNAR LOGISTICS

Lightweight propulsion unit for movement of
 personnel and equipment across lunar surface
 [NASA-CASE-MFS-20130] c28 N71-27585

LUNAR ROCKS

Impact bit for cutting, collecting, and storing
 samples such as lunar rock cuttings
 [NASA-CASE-XNP-01412] c15 N70-42034

LUNAR SOIL

Development of device for separating,
 collecting, and viewing soil particles
 [NASA-CASE-XNP-09770] c15 N71-20440
 Device which separates and screens particles of
 soil samples for vidicon viewing in vacuum and
 reduced gravity environments
 [NASA-CASE-XNP-09770-3] c11 N71-27036

LUNAR SURFACE VEHICLES

Portable penetrometer for analyzing soil characteristics
[NASA-CASE-NFS-20774] c14 N73-19420
Method for obtaining oxygen from lunar or similar soil
[NASA-CASE-HSC-12408-1] c46 N74-13011

LUNAR SURFACE VEHICLES
Resilient vehicle wheel for lunar surface travel
[NASA-CASE-NFS-20400] c31 N71-18611
Resilient wheel design with woven wire tire and abrasive treads for lunar surface vehicles
[NASA-CASE-NFS-13929] c15 N71-27091

LUNGS
Piston device for producing known constant positive pressure within lungs by using thoracic muscles
[NASA-CASE-XMS-01615] c05 N70-41329

M

MACHINE TOOLS

Rotary impact-type rock drill for recovering rock cuttings
[NASA-CASE-XNP-07478] c14 N69-21923
Description of protective device for providing safe operating conditions around work piece in machine or metal working tool
[NASA-CASE-XLE-01092] c15 N71-22797
Description of device for aligning stacked sheets of paper for repetitive cutting
[NASA-CASE-XMS-04178] c15 N71-22798
Development and characteristics of frusto-conical die nib for extrusion of refractory metals
[NASA-CASE-XLE-06773] c15 N71-23817
Design and development of layout tool for machine shop use to locate point in precise reference to straight or bowed reference edge
[NASA-CASE-FRC-10005] c15 N71-26145
Optical gauging system for monitoring machine tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673
Caterpillar micropositioner for positioning machine tools adjacent to workpiece
[NASA-CASE-GSC-10780-1] c14 N72-16283
Geneva mechanism --- including star wheel and driver
[NASA-CASE-NPO-13281-1] c37 N75-13266
Zero torque gear head wrench
[NASA-CASE-NPO-13059-1] c37 N76-20480
Precision alignment apparatus for cutting a workpiece
[NASA-CASE-LAR-11658-1] c37 N77-14478
Adjustable chamfering tool
[NASA-CASE-NPO-10857-1] c37 N77-22478
Toggle mechanism for pinching metal tubes
[NASA-CASE-GSC-12274-1] c37 N78-25428

MACHINERY

Design of mechanical device for stirring several test tubes simultaneously
[NASA-CASE-XAC-06956] c15 N71-21177
Precipitation detector and mechanism for stopping and restarting machinery at initiation and cessation of rain
[NASA-CASE-XLA-02619] c10 N71-26334
Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917
Rotary target V-block --- for optical alignment of machinery
[NASA-CASE-LAR-12007-1] c74 N78-15883

MACHINING

Laser machining device with dielectric functioning as beam waveguide for mechanical and medical applications
[NASA-CASE-HQN-10541-2] c15 N71-27135
Lathe tool and holder combination for machining resin impregnated fiberglass cloth laminates
[NASA-CASE-XLA-10470] c15 N72-21489
Drilled ball bearing with a one piece anti-tipping cage assembly
[NASA-CASE-LEW-11925-1] c37 N75-31446
Method and tool for machining a transverse slot about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249

MAGNESIUM

Chemical spot test for identifying magnesium or magnesium alloys used in aerospace applications
[NASA-CASE-LAR-10953-1] c17 N73-27446

SUBJECT INDEX

MAGNESIUM ALLOYS

Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients
[NASA-CASE-XLA-01262] c15 N71-21404
Chemical spot test for identifying magnesium or magnesium alloys used in aerospace applications
[NASA-CASE-LAR-10953-1] c17 N73-27446

MAGNESIUM OXIDES

Method for determining presence and type of OH in MgO
[NASA-CASE-NPO-10774] c06 N72-17095

MAGNET COILS

Improved alternator with windings of superconducting materials acting as permanent magnet
[NASA-CASE-XLE-02824] c03 N69-38980
Relay circuit breaker with magnetic latching to provide conductive and nonconductive paths for current devices
[NASA-CASE-MSC-11277] c09 N71-29008

MAGNETIC CHARGE DENSITY

Ion engine with magnetic circuit for optimal discharge
[NASA-CASE-XLE-01124] c28 N71-14043

MAGNETIC CIRCUITS

Ion engine with magnetic circuit for optimal discharge
[NASA-CASE-XLE-01124] c28 N71-14043

MAGNETIC COILS

Time division multiplexer with magnetic latching relays
[NASA-CASE-XNP-00431] c09 N70-38998
Linear magnetic braking system with nonuniformly wrapped primary coil producing constant braking force on secondary coil
[NASA-CASE-XLE-05079] c15 N71-17652
Electroexplosive safe-arm initiator using electric driven electromagnet coils and magnets to align charge
[NASA-CASE-LAR-10372] c09 N71-18599
Magnifying image intensifier
[NASA-CASE-GSC-12010-1] c74 N78-18905

MAGNETIC CONTROL

Magnetically opened diaphragm design with camera shutter and expansion tube applications
[NASA-CASE-XLA-03660] c15 N71-21060
Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
[NASA-CASE-XLA-00327] c25 N71-29184
Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459
Magnetic bearing system
[NASA-CASE-GSC-11978-1] c37 N77-17464

MAGNETIC CORES

Variable frequency magnetic coupled multivibrator with temperature compensated frequency control circuit
[NASA-CASE-XGS-00458] c09 N70-38604
Variable frequency magnetic coupled multivibrator with output signal of constant amplitude and waveform
[NASA-CASE-XGS-00131] c09 N70-38995
Electronic counter circuit utilizing magnetic core and low power consumption
[NASA-CASE-XNP-08836] c09 N71-12515
Pulsed magnetic core memory element with blocking oscillator feedback for interrogation without loss of digital information
[NASA-CASE-XGS-03303] c08 N71-18595
Describing magnetic core current switching device for steering bipolar current pulses to memory units
[NASA-CASE-NPO-10201] c08 N71-18694
Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
[NASA-CASE-XNP-01318] c10 N71-23033
Magnetic current regulator for saturable core transformer
[NASA-CASE-ERC-10075] c09 N71-24800
Power switch with transfluxor type magnetic core
[NASA-CASE-NPO-10242] c09 N71-24803
Unsaturating magnetic core transformer design with warning signal for electrical power processing equipment
[NASA-CASE-ERC-10125] c09 N71-24893

SUBJECT INDEX

MAGNETIC MEASUREMENT

- Temperature sensitive magnetometer with pulsating thermally cycled magnetic core [NASA-CASE-XAC-03740] c14 N71-26135
- Digital magnetic core memory with sensing amplifier circuits [NASA-CASE-XNP-01012] c08 N71-28925
- Saturable magnetic core and signal detection for indicating impending saturation [NASA-CASE-BRC-10089] c23 N72-17747
- Commutator for steering precisely controlled bidirectional currents through numerous loads by use of magnetic core shift registers [NASA-CASE-NPO-10743] c08 N72-21199
- Banded transformer cores [NASA-CASE-NPO-11966-1] c33 N74-17928
- MAGNETIC DIPOLES**
 - Torquemeter for determining magnitude of torque generated by interaction of magnetic dipole between test specimen and ambient magnetic field [NASA-CASE-XGS-01013] c14 N71-23725
- MAGNETIC DISKS**
 - Device for removing plastic dust cover from digital computer disk packs for inspection and cleaning [NASA-CASE-LAR-10590-1] c15 N70-26819
- MAGNETIC FIELD CONFIGURATIONS**
 - Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump [NASA-CASE-NPO-13663-1] c35 N77-14406
 - Magnifying image intensifier [NASA-CASE-GSC-12010-1] c74 N78-18905
- MAGNETIC FIELDS**
 - Magnetically diffused radial electric arc heater [NASA-CASE-XLA-00330] c33 N70-34540
 - Method and apparatus for communicating through ionized layer of gases surrounding spacecraft during reentry into planetary atmospheres [NASA-CASE-XLA-01127] c07 N70-41372
 - Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases [NASA-CASE-XLE-01449] c15 N70-41646
 - Ion engine with magnetic circuit for optimal discharge [NASA-CASE-XLE-01124] c28 N71-14043
 - Development of wide range linear fluxgate magnetometer [NASA-CASE-IGS-01587] c14 N71-15962
 - Magnetic element position sensing device, using misaligned electromagnets [NASA-CASE-IGS-07514] c23 N71-16099
 - Development of non-magnetic indexing device for orienting magnetic flux sensing instrument in magnetic field without generation of detrimental magnetic fields [NASA-CASE-IGS-02422] c15 N71-21529
 - Negation of magnetic fields produced by thin waferlike circuit elements in space vehicles [NASA-CASE-IGS-03390] c03 N71-23187
 - Torquemeter for determining magnitude of torque generated by interaction of magnetic dipole between test specimen and ambient magnetic field [NASA-CASE-IGS-01013] c14 N71-23725
 - Fluxgate magnetometer for measuring magnetic field along two axes using one sensor [NASA-CASE-GSC-10441-1] c14 N71-27325
 - Segmented superconducting magnet producing staggered magnetic field and suitable for broadband traveling wave masers [NASA-CASE-XGS-10518] c16 N71-28554
 - Magnetic method for detection of aircraft position relative to runway [NASA-CASE-ARC-10179-1] c21 N72-22619
 - Radial magnetic field for ion thruster [NASA-CASE-LEW-10770-1] c28 N72-22770
 - Automatic shunting of ion thruster magnetic field when thruster is not operating [NASA-CASE-LEW-10835-1] c28 N72-22771
 - Apparatus for determining distance to lighting strokes from single station by magnetic and electric field sensing antennas [NASA-CASE-KSC-10698] c07 N73-20175
 - Superconducting magnetic field trapping device for producing magnetic field in air [NASA-CASE-XNP-01185] c26 N73-28710
 - Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube [NASA-CASE-LEW-11617-1] c33 N74-10195
- Magnetometer using superconducting rotating body [NASA-CASE-NPO-13388-1] c35 N76-16390
- Compact, high intensity arc lamp with internal magnetic field producing means [NASA-CASE-NPO-11510-1] c33 N77-21315
- Magnetic heat pumping [NASA-CASE-LEW-12508-1] c34 N78-17335
- Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength [NASA-CASE-LEW-12081-2] c72 N78-19907
- Atomic hydrogen storage method and apparatus [NASA-CASE-LEW-12081-3] c44 N79-18455
- MAGNETIC FILMS**
 - Manganese bismuth films with narrow transfer characteristics for Curie-point switching [NASA-CASE-NPO-11336-1] c76 N79-16678
- MAGNETIC FLUX**
 - Excitation and detection circuitry for flux responsive magnetic head [NASA-CASE-XNP-04183] c09 N69-24329
 - Cryogenic flux-gated magnetometer using superconductors [NASA-CASE-XAC-02407] c14 N69-27423
 - Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification [NASA-CASE-IGS-01881] c09 N70-40123
 - Development of hybrid bearing lubrication system with combination of standard type lubrication and magnetic flux field for earth atmosphere and space environment operation [NASA-CASE-XNP-01641] c15 N71-22997
 - Magnetic current regulator for saturable core transformer [NASA-CASE-BRC-10075] c09 N71-24800
 - Magnetic flux pump for changing intensity of magnetic fields [NASA-CASE-XNP-01187] c15 N73-28516
 - Method for increasing intensity of magnetic field by transferring flux [NASA-CASE-XNP-01188] c15 N73-32361
 - Magnetic bearing --- for supplying magnetic fluxes [NASA-CASE-GSC-11079-1] c37 N75-18574
- MAGNETIC FORGING**
 - Portable magnetomotive hammer for metal working [NASA-CASE-XNP-03793] c15 N71-24833
 - Method and apparatus for portable high precision magnetomotive bulging, constricting, and joining of large diameter metal tubes [NASA-CASE-XNP-05114-3] c15 N71-24865
- MAGNETIC INDUCTION**
 - Continuous operation, single phased, induction plasma accelerator producing supersonic speeds [NASA-CASE-XLA-01354] c25 N70-36946
 - Automatic power supply circuit design for driving inductive loads and minimizing power consumption including solenoid example [NASA-CASE-NPO-10716] c09 N71-24892
 - Double-induction variable speed system for constant-frequency electrical power generation [NASA-CASE-BRC-10065] c09 N71-27364
 - Microwave generator using Gunn effect for magnetic tuning [NASA-CASE-NPO-12106] c09 N73-15235
 - High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways [NASA-CASE-ARC-10516-1] c70 N74-21300
- MAGNETIC LENSES**
 - Quadrupole mass spectrometer using noise spectrum for ion separation and identification [NASA-CASE-XNP-04231] c14 N73-32325
- MAGNETIC MATERIALS**
 - Low density and low viscosity magnetic propellant for use under zero gravity conditions [NASA-CASE-XLE-01512] c12 N70-40124
- MAGNETIC MEASUREMENT**
 - Cryogenic flux-gated magnetometer using superconductors [NASA-CASE-XAC-02407] c14 N69-27423
 - Development of wide range linear fluxgate magnetometer [NASA-CASE-XGS-01587] c14 N71-15962
 - Active RC filter networks and amplifiers for deep space magnetic field measurement [NASA-CASE-XAC-05462-2] c70 N72-17171
 - Magnetometer using superconducting rotating body [NASA-CASE-NPO-13388-1] c35 N76-16390

MAGNETIC POLES

SUBJECT INDEX

MAGNETIC POLES

Design of magnetohydrodynamic induction machine with end poles which produce compensating magnetic fields
[NASA-CASE-XNP-07481] c25 N69-21929

Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406

MAGNETIC PUMPING

Magnetic flux pump for changing intensity of magnetic fields
[NASA-CASE-XNP-01187] c15 N73-28516

Method for increasing intensity of magnetic field by transferring flux
[NASA-CASE-XNP-01188] c15 N73-32361

Magnetocaloric pump --- for cryogenic fluids
[NASA-CASE-LEW-11672-1] c37 N74-27904

Magnetic heat pumping
[NASA-CASE-LEW-12508-2] c34 N77-32435

MAGNETIC RECORDING

Development of data storage system for storing digital data in high density format on magnetic tape
[NASA-CASE-XNP-02778] c08 N71-22710

Magnetic recording head composed of ferrite core coated with thin film of aluminum-iron-silicon alloy
[NASA-CASE-GSC-10097-1] c08 N71-27210

Thermomagnetic recording and magnetic-optic playback system
[NASA-CASE-NPO-10872-1] c35 N79-16246

Manganese bismuth films with narrow transfer characteristics for Curie-point switching
[NASA-CASE-NPO-11336-1] c76 N79-16678

MAGNETIC SIGNALS

Plural recorder system which limits signal recording to signals of sufficient interest
[NASA-CASE-XNS-06949] c09 N69-21467

MAGNETIC STORAGE

Nondestructive interrogating and state changing circuit for binary magnetic storage elements
[NASA-CASE-XGS-00174] c08 N70-34743

Magnetic matrix memory system for nondestructive reading of information contained in matrix
[NASA-CASE-XNP-05835] c08 N71-12504

Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418

Redundant memory for enhanced reliability of digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135

Momentum wheel design for spacecraft attitude control and magnetic drum and head system for data storage
[NASA-CASE-NPO-11481] c21 N73-13644

Atomic hydrogen storage method and apparatus
[NASA-CASE-LEW-12081-1] c28 N78-24365

MAGNETIC SUSPENSION

Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-1] c19 N76-18227

Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-2] c37 N78-27424

MAGNETIC SWITCHING

Power switch with transfluxor type magnetic core
[NASA-CASE-NPO-10242] c09 N71-24803

Design and development of multistage current steering switch with inductively coupled magnetic cores
[NASA-CASE-XNP-08567] c09 N71-26000

MAGNETIC TAPE TRANSPORTS

Reel safety brake
[NASA-CASE-GSC-11960-1] c37 N77-14479

MAGNETIC TAPES

Tape cartridge with high capacity storage of endless-loop magnetic tape
[NASA-CASE-XGS-00769] c14 N70-41647

Endless loop tape transport mechanism for driving and tensioning recording medium in magnetic tape recorder
[NASA-CASE-XGS-01223] c07 N71-10609

Development of low friction magnetic recording tape
[NASA-CASE-XGS-00373] c23 N71-15978

System for recording and reproducing PCM data from data stored on magnetic tape
[NASA-CASE-XGS-01021] c08 N71-21042

Kinetic and static friction force measurement between magnetic tape and magnetic head surfaces
[NASA-CASE-XNP-08680] c14 N71-22995

Technique for recovery of voice data from heat damaged magnetic tape
[NASA-CASE-HSC-14219-1] c32 N74-27612

Automatic character skew and spacing checking network --- of digital tape drive systems
[NASA-CASE-GSC-11925-1] c33 N76-18353

MAGNETIC TRANSDUCERS

Magnetometer with a miniature transducer and automatic scanning
[NASA-CASE-LAR-11617-2] c35 N78-32397

MAGNETIZATION

Permanently magnetized ion engine casing construction for use in spacecraft propulsion systems
[NASA-CASE-XNP-06942] c28 N71-23293

MAGNETO-OPTICS

Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NPO-11317-2] c36 N74-13205

MAGNETOHYDRODYNAMIC FLOW

Improving performance of magnetoplasma dynamic arc rocket engine
[NASA-CASE-LEW-11180-1] c25 N73-25760

MAGNETOHYDRODYNAMIC GENERATORS

Design of magnetohydrodynamic induction machine with end poles which produce compensating magnetic fields
[NASA-CASE-XNP-07481] c25 N69-21929

Magnetohydrodynamic generator for mixing nonconductive gas and liquid metal mist to form slugs
[NASA-CASE-XLE-02083] c03 N69-39983

Thermoelectric power conversion by liquid metal flowing through magnetic field
[NASA-CASE-XNP-00644] c03 N70-36803

Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562

MAGNETOMETERS

Nonmagnetic thermal motor for magnetometer movement
[NASA-CASE-XAR-03786] c09 N69-21313

Cryogenic flux-gated magnetometer using superconductors
[NASA-CASE-XAC-02407] c14 N69-27423

Flux gate magnetometer with toroidal gating coil and solenoidal output coil for signal modulation or amplification
[NASA-CASE-XGS-01881] c09 N70-40123

Development of wide range linear fluxgate magnetometer
[NASA-CASE-XGS-01587] c14 N71-15962

Design and development of optically pumped resonance magnetometer for determining vectoral components in spatial coordinate system
[NASA-CASE-XGS-04879] c14 N71-20428

Temperature sensitive magnetometer with pulsating thermally cycled magnetic core
[NASA-CASE-XAC-03740] c14 N71-26135

Fluxgate magnetometer for measuring magnetic field along two axes using one sensor
[NASA-CASE-GSC-10441-1] c14 N71-27325

Hall effect magnetometer
[NASA-CASE-LEW-11632-2] c35 N75-13213

Magnetometer using superconducting rotating body
[NASA-CASE-NPO-13388-1] c35 N76-16390

Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114

Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056

Magnetometer with a miniature transducer and automatic scanning
[NASA-CASE-LAR-11617-2] c35 N78-32397

MAGNETRONS

Tuning arrangement for frequency control of magnetron-type electron discharge device
[NASA-CASE-XNP-09771] c09 N71-24841

MAGNETS

Magnetic electrical connectors for biomedical percutaneous implants
[NASA-CASE-KSC-11030-1] c52 N77-25772

MAGNIFICATION

Camera adapter design for image magnification including lens and illuminator
[NASA-CASE-XNP-03844-1] c14 N71-26474

SUBJECT INDEX

MANUFACTURING

- Passive type, magnifying scratch gage, force transducer
[NASA-CASE-LAR-10496-1] c14 N72-22437
- Magnifying image intensifier
[NASA-CASE-GSC-12010-1] c74 N78-18905
- MAGNITUDE**
Torquemeter for determining magnitude of torque generated by interaction of magnetic dipole between test specimen and ambient magnetic field
[NASA-CASE-XGS-01013] c14 N71-23725
- MAINTENANCE**
Self testing and repairing computer comprising control and diagnostic unit and rollback points for error correction
[NASA-CASE-NPO-10567] c08 N71-24633
- Development of process for bonding resinous body in cavities of honeycomb structures
[NASA-CASE-HSC-12357] c15 N73-12489
- Method of repairing discontinuity in fiberglass structures
[NASA-CASE-LAR-10416-1] c24 N74-30001
- MAINFUNCTIONS**
Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
- MANDRELS**
Mandrel for shaping solid propellant rocket fuel into engine casing
[NASA-CASE-XLA-00304] c27 N70-34783
- Rotating, multisided mandrel for fabricating gored inflatable spacecraft
[NASA-CASE-XLA-04143] c15 N71-17687
- Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
- MANGANESE**
Manganese bismuth films with narrow transfer characteristics for Curie-point switching
[NASA-CASE-NPO-11336-1] c76 N79-16678
- MANIFOLDS**
Injector manifold assembly for bipropellant rocket engines providing for fuel propellant to serve as coolant
[NASA-CASE-XNP-00148] c28 N70-38710
- MANIPULATORS**
Manipulator for remote handling in zero gravity environment
[NASA-CASE-NPS-14405] c15 N72-28495
- Orthotic arm joint --- for use in mechanical arms
[NASA-CASE-NPS-21611-1] c54 N75-12616
- Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system
[NASA-CASE-HSC-14245-1] c18 N75-27041
- Cooperative multiaxis sensor for teleoperation of article manipulating apparatus
[NASA-CASE-NPO-13386-1] c54 N75-27758
- Remotely operable articulated manipulator
[NASA-CASE-NPS-22707-1] c37 N76-15457
- Remote manipulator system
[NASA-CASE-NPS-22022-1] c37 N76-15460
- An improved controller arm for a remotely related slave arm
[NASA-CASE-ARC-11052-1] c54 N77-30751
- Anthropomorphic master/slave manipulator system
[NASA-CASE-ARC-10756-1] c54 N77-32721
- Compact artificial hand
[NASA-CASE-NPO-13906-1] c54 N77-32723
- Wrist joint assembly
[NASA-CASE-NPS-23311-1] c54 N78-17676
- End effector device --- for manipulators
[NASA-CASE-NPS-23692-1] c54 N78-19773
- Coupling device for moving vehicles
[NASA-CASE-GSC-12322-1] c37 N78-25429
- Pneumatic inflatable end effector
[NASA-CASE-NPS-23696-1] c54 N78-32724
- A coupling device for moving vehicles
[NASA-CASE-GSC-12429-1] c37 N79-19364
- Terminal guidance sensor system
[NASA-CASE-NPO-14521-1] c54 N79-20746
- MANNED ORBITAL LABORATORIES**
Artificial gravity system for simulating self-locomotion capability of astronauts in rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776
- MANNED ORBITAL RESEARCH LABORATORIES**
Manned space station collapsible for launching and self-erectable in orbit
[NASA-CASE-XLA-00678] c31 N70-34296
- Radial module manned space station with artificial gravity environment
[NASA-CASE-XMS-01906] c31 N70-41373
- MANNED SPACE FLIGHT**
Three-port transfer valve with one port open continuously suitable for manned space flight
[NASA-CASE-XAC-01158] c15 N71-23051
- Device for removing air from water for use in life support systems in manned space flight
[NASA-CASE-XLA-8914] c15 N73-12492
- MANNED SPACECRAFT**
Manned space capsule configuration for orbital flight and atmospheric reentry
[NASA-CASE-XLA-00149] c31 N70-37938
- Delta winged, manned reentry vehicle capable of horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986
- Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
- Design and configuration of manned space capsule
[NASA-CASE-XLA-01332] c31 N71-15664
- Development of method for producing artificial gravity in manned spacecraft
[NASA-CASE-XNP-02595] c31 N71-21881
- Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
- Collapsible couch system for manned space vehicles
[NASA-CASE-HSC-13140] c05 N72-11085
- Spacecraft with artificial gravity and earthlike atmosphere
[NASA-CASE-LBW-11101-1] c31 N73-32750
- MAGNETERS**
Magnetically centered liquid column float
[NASA-CASE-XAC-00030] c14 N70-34820
- Absolute pressure measuring device for measuring gas density level in high vacuum range
[NASA-CASE-LAR-10000] c14 N73-30394
- MANUAL CONTROL**
Multiple circuit switch apparatus requiring minimum hand and eye movement by operator
[NASA-CASE-XAC-03777] c10 N71-15909
- Manual control mechanism for adjusting control rod to null position
[NASA-CASE-XLA-01808] c15 N71-20740
- Manually activated heat pump for mechanically converting human operator output into heat energy
[NASA-CASE-NPO-10677] c05 N72-11084
- Development of flight simulator system to show position of joystick displacement
[NASA-CASE-NPO-11497] c08 N73-25206
- Solid state controller three axes controller
[NASA-CASE-HSC-12394-1] c08 N74-10942
- G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381
- A velocity vector control system augmented with direct lift control --- stability augmentation using manual control
[NASA-CASE-LAR-12268-1] c08 N79-20136
- MANUFACTURING**
Selective gold diffusion on monolithic silicon chips for switching and nonswitching amplifier devices and circuits and linear and digital logic circuits
[NASA-CASE-ERC-10072] c09 N70-11148
- Standard coupling design for mass production
[NASA-CASE-INS-02532] c15 N70-41808
- Method for making screen with unlimited fineness of mesh and screen thickness
[NASA-CASE-XLB-00953] c15 N71-15966
- Describing apparatus for manufacturing operations in low and zero gravity environments of orbital space flight
[NASA-CASE-NPS-20410] c15 N71-19214
- Manufacture of fluid containers from fused coated polyester sheets having resealable septum
[NASA-CASE-NPO-10123] c15 N71-24835
- Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779

Shielded flat conductor cable fabricated by electroless and electrolytic plating
[NASA-CASE-MPS-13687] c09 N71-28691

Production method for manufacturing porous tungsten bodies from tungsten powder particles
[NASA-CASE-XNP-04339] c17 N71-29137

Method of making porous conductive supports for electrodes --- by electroforming and stacking nickel foils
[NASA-CASE-GSC-11367-1] c44 N74-19692

Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917

Bonding method in the manufacture of continuous regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

Process for fabricating SiC semiconductor devices
[NASA-CASE-LRW-12094-1] c76 N76-25049

Solar hydrogen generator
[NASA-CASE-LAR-11361-1] c44 N77-22607

Method of forming shrink-fit compression seal
[NASA-CASE-LAR-11563-1] c37 N77-23482

Method for making a hot wire anemometer and product thereof
[NASA-CASE-ARC-10900-1] c35 N77-24454

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-MPS-23518-3] c44 N78-25557

Process for manufacturing cannula
[NASA-CASE-NPO-14073-1] c52 N78-25762

Method of manufacture of bonded fiber flywheel
[NASA-CASE-MFS-23674-1] c24 N78-27182

MAPPING

Solid state device for mapping flux and power in nuclear reactor cores
[NASA-CASE-XLB-00301] c14 N70-36808

Design and development of random function tracer for obtaining coordinates of points on contour maps
[NASA-CASE-XLA-01401] c15 N71-21179

Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118

MAPS

Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015

Optical process for producing classification maps from multispectral data
[NASA-CASE-MSC-14472-1] c43 N77-10584

MASERS

Segmented superconducting magnet producing staggered magnetic field and suitable for broadband traveling wave masers
[NASA-CASE-XGS-10518] c16 N71-28554

Traveling wave maser for operation in 7 to 20 GHz frequency range
[NASA-CASE-NPO-11437] c16 N72-28521

Reflected-wave maser --- low noise amplifier
[NASA-CASE-NPO-13490-1] c36 N76-31512

Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures
[NASA-CASE-NPO-14254-1] c36 N78-22359

Multistation refrigeration system
[NASA-CASE-NPO-13839-1] c31 N78-25256

External bulb variable volume maser
[NASA-CASE-GSC-12334-1] c36 N79-14362

MASKING

Reusable masking boot for chemical machining operations
[NASA-CASE-XNP-02092] c15 N70-42033

Composition and process for improving definition of resin masks used in chemical etching
[NASA-CASE-XGS-04993] c14 N71-17574

MASS

Apparatus for measuring human body mass in zero or reduced gravity environment
[NASA-CASE-XMS-03371] c05 N70-42000

Tuned damped vibration absorber for mass vibrating in more than one degree of freedom for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006

Fluid mass sensor for a zero gravity environment
[NASA-CASE-MSC-14653-1] c35 N77-19385

MASS BALANCE

Two plane balance for simultaneous measurements of multiple forces

[NASA-CASE-XAC-00073] c14 N70-3481.

Control system for pressure balance device used in calibrating pressure gages
[NASA-CASE-XNP-04134] c14 N71-23755

MASS DISTRIBUTION

Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339

MASS FLOW

Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736

Mass flow meter containing beta source for measuring nonpolar liquid flow
[NASA-CASE-MFS-20485] c14 N72-11365

Generation of high temperature, high mass flow, and high Reynolds number air at hypersonic speeds
[NASA-CASE-LAR-10578-1] c12 N73-25262

MASS SPECTROMETERS

Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461

Design and characteristics of time of flight mass spectrometer to measure or analyze gases at low pressures and time of flight of single gas molecule
[NASA-CASE-XNP-01056] c14 N71-23041

Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids
[NASA-CASE-ERC-10014] c14 N71-28863

Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992

High speed scanner for measuring mass of preselected gases at high sampling rate
[NASA-CASE-LAR-10766-1] c14 N72-21432

Apparatus for analyzing gas samples in containers including vacuum chamber, mass spectrometer, and gas chromatography
[NASA-CASE-GSC-10903-1] c14 N73-12444

Quadrupole mass spectrometer using noise spectrum for ion separation and identification
[NASA-CASE-XNP-04231] c14 N73-32325

Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406

Method for fabricating a mass spectrometer inlet leak
[NASA-CASE-GSC-12077-1] c35 N77-24455

High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

MASS SPECTROSCOPY

Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393

Fluid sampling device
[NASA-CASE-GSC-12143-1] c35 N77-32456

MATERIAL ABSORPTION

Describing sorption vacuum trap having housing with group of reentrant wall portions projecting into internal gas-permeous container filled with gas and vapor sorbent material
[NASA-CASE-XER-09519] c14 N71-18483

MATERIALS HANDLING

Two component valve assembly for cryogenic liquid transfer regulation
[NASA-CASE-XLE-00397] c15 N70-36492

Catalyst bed element removing tool
[NASA-CASE-XPB-00811] c15 N70-36901

Air bearings for near frictionless transfer of loads from one body to another
[NASA-CASE-XNP-01887] c15 N71-10617

Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782

Method and apparatus for removing plastic insulation from wire using cryogenic equipment

SUBJECT INDEX

MEASURING INSTRUMENTS

- [NASA-CASE-MPS-10340] c15 N71-17628
Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention
- [NASA-CASE-IMS-01905] c12 N71-21089
Description of method for making homogeneous foamed materials in weightless environment using materials having different physical properties
- [NASA-CASE-XMP-09902] c15 N72-11387
Design and characteristics of mechanically extended and telescoping boom on crane assembly
- [NASA-CASE-WPO-11118] c03 N72-25021
Design and development of device to prevent clogging in hoppers containing particulate materials
- [NASA-CASE-LAR-10961-1] c15 N73-12496
Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
- [NASA-CASE-WPO-11213] c15 N73-20514
Development and characteristics of system for skin packaging articles using thermoplastic film heating and vacuum operated equipment
- [NASA-CASE-MPS-20855] c15 N73-27405
Apparatus for inserting and removing specimens from high temperature vacuum furnaces
- [NASA-CASE-LAR-10841-1] c31 N74-27900
Deployable flexible tunnel
- [NASA-CASE-MPS-22636-1] c37 N76-22540
- ## MATERIALS RECOVERY
- Pyrolysis system and process --- recovering energy from solid wastes containing hydrocarbons
- [NASA-CASE-MSC-12669-1] c44 N76-16621
Automated system for identifying traces of organic chemical compounds in aqueous solutions
- [NASA-CASE-WPO-13063-1] c25 N76-18245
Recovery of aluminum and binder from composite propellants
- [NASA-CASE-WPO-14110-1] c28 N79-10225
Process for the leaching of AP from propellant
- [NASA-CASE-WPO-14109-1] c28 N79-10227
- ## MATERIALS SCIENCE
- Flammability test chamber for testing materials in certain predetermined environments
- [NASA-CASE-RSC-10126] c11 N71-24985
Device for measuring thermoelectric properties of materials under high pressure
- [NASA-CASE-WPO-11749] c14 N73-28486
- ## MATERIALS TESTS
- Development of equipment for measuring thermal shock resistance of thin discs of material
- [NASA-CASE-XLE-02024] c14 N71-22964
Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
- [NASA-CASE-IMS-02930] c11 N71-23042
Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
- [NASA-CASE-XLA-08254] c14 N71-26161
Hermetic sealing device for ends of tubular bodies during materials testing operations
- [NASA-CASE-WPO-10431] c15 N71-29132
Development of apparatus for testing burning rate and flammability of materials
- [NASA-CASE-IMS-09690] c33 N72-25913
Multiaxes vibration device for making vibration tests along orthogonal axes of test specimen
- [NASA-CASE-MPS-20242] c14 N73-19421
Material testing system with load sensor for applying and measuring cyclic tensile and compressive loads to test specimens
- [NASA-CASE-MPS-20673] c14 N73-20476
- ## MATHEMATICAL LOGIC
- Logical function and circuit generator
- [NASA-CASE-XLA-05099] c09 N73-13209
- ## MATRICES (CIRCUITS)
- Fabrication methods for matrices of solar cell submodules
- [NASA-CASE-XMP-05821] c03 N71-11056
Magnetic matrix memory system for nondestructive reading of information contained in matrix
- [NASA-CASE-XMP-05835] c08 N71-12504
Conductor for connecting parallel cells into submodules in series to form solar cell matrix
- [NASA-CASE-WPO-10821] c03 N71-19545
- Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
- [NASA-CASE-XMP-01318] c10 N71-23033
Serial digital decoder design with square circuit matrix and serial memory storage units
- [NASA-CASE-WPO-10150] c08 N71-24650
Electrically connected matrix of discrete solar cell blanks
- [NASA-CASE-WPO-10591] c03 N72-22041
- ## MCLEOD GAGES
- Automatic recording McLeod gage with three electrodes and solenoid valve connection
- [NASA-CASE-XLE-03280] c14 N71-23093
- ## MEASURING INSTRUMENTS
- Capacitance measuring device for determining flare accuracy on tapered tubes
- [NASA-CASE-XKS-03495] c14 N69-39785
Characteristics and performance of electrical system to determine angular rotation
- [NASA-CASE-XMP-00447] c14 N70-33179
Two plane balance for simultaneous measurements of multiple forces
- [NASA-CASE-XAC-00073] c14 N70-34813
Parallel motion suspension device for measuring instruments
- [NASA-CASE-XMP-01567] c15 N70-41310
Method and apparatus for measuring potentials in plasmas
- [NASA-CASE-XLE-00821] c25 N71-15650
Transducer for measuring deflections from vibrating structures
- [NASA-CASE-XLA-03135] c32 N71-16428
Gage for quality control of sealing surfaces of threaded boss
- [NASA-CASE-XMP-04966] c14 N71-17658
Equipment for measuring partial water vapor pressure in gas tank
- [NASA-CASE-XMS-01618] c14 N71-20741
Gauge for measuring quantity of liquid in spherical tank in reduced gravity
- [NASA-CASE-XMS-06236] c14 N71-21007
Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
- [NASA-CASE-XMP-10040] c15 N71-22877
Ablation sensor for measuring surface ablation rate of material on vehicles entering earths atmosphere on entry into planetary atmospheres
- [NASA-CASE-XLA-01791] c14 N71-22991
Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
- [NASA-CASE-XGS-01023] c14 N71-22992
Electron beam deflection devices for measuring electric fields
- [NASA-CASE-XMP-10289] c14 N71-23699
Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
- [NASA-CASE-XAC-04885] c14 N71-23790
Gage for measuring internal angle of flare on end of tube
- [NASA-CASE-XMP-04415] c14 N71-24693
Device utilizing RC rate generators for continuous slow speed measurement
- [NASA-CASE-XMP-02966] c10 N71-24863
Solid state force measuring electromechanical transducers made of piezoresistive materials
- [NASA-CASE-ERC-10088] c26 N71-25490
Design and development of layout tool for machine shop use to locate point in precise reference to straight or bowed reference edge
- [NASA-CASE-FRC-10005] c15 N71-26145
Volume displacement transducer for leak detection in hermetically sealed semiconductor devices
- [NASA-CASE-ERC-10033] c14 N71-26672
Deformation measuring apparatus with feedback control for arbitrarily shaped structures
- [NASA-CASE-LAR-10098] c32 N71-26681
Foam insulation thickness measuring and injection device for spacecraft applications
- [NASA-CASE-MPS-20261] c14 N71-27005
Resonant infrasonic gauging device for measuring liquid quantity in closed bladderless reservoir
- [NASA-CASE-MSC-11847-1] c14 N72-11363
Measuring roll alignment of test body with respect to reference body

MECHANICAL DEVICES

SUBJECT INDEX

[NASA-CASE-GSC-10514-1] c14 N72-20379
 Sensor for detecting and measuring energy, velocity and direction of travel of a cosmic dust particle
 [NASA-CASE-GSC-10503-1] c14 N72-20381
 Pumping and metering dual piston system and monitor for reaction chamber constituents
 [NASA-CASE-GSC-10218-1] c15 N72-21465
 Capacitive tank gaging device for monitoring one constituent of two phase fluid by sensing dielectric constant
 [NASA-CASE-MFS-21629] c14 N72-22442
 Development of mechanical device for measuring distance of point within sphere from surface of sphere
 [NASA-CASE-XLA-06683] c14 N72-28436
 Surface based altitude measuring system for accurately measuring altitude of airborne vehicle
 [NASA-CASE-ERC-10412-1] c09 N73-12211
 Instrument for measuring magnitude and direction of flow velocity in flow field
 [NASA-CASE-LAR-10855-1] c14 N73-13415
 Multiaxial vibration device for making vibration tests along orthogonal axes of test specimen
 [NASA-CASE-MFS-20242] c14 N73-19421
 Material testing system with load sensor for applying and measuring cyclic tensile and compressive loads to test specimens
 [NASA-CASE-MFS-20673] c14 N73-20476
 Development of droplet monitoring probe for use in analysis of droplet propagation in mixed-phase fluid stream
 [NASA-CASE-NPO-10985] c14 N73-20478
 Device for measuring thermoelectric properties of materials under high pressure
 [NASA-CASE-NPO-11749] c14 N73-28486
 Radio frequency source resistance measuring instruments of varied design
 [NASA-CASE-NPO-11291-1] c14 N73-30388
 Absolute pressure measuring device for measuring gas density level in high vacuum range
 [NASA-CASE-LAR-10000] c14 N73-30394
 Thin film analyzer utilizing holographic techniques
 [NASA-CASE-MFS-20823-1] c16 N73-30476
 Three-axis adjustable loading structure
 [NASA-CASE-FRC-10051-1] c35 N74-13129
 Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels
 [NASA-CASE-NPO-10617-1] c35 N74-22095
 Apparatus and method for processing Korotkov sounds --- for blood pressure measurement
 [NASA-CASE-MSC-13999-1] c52 N74-26626
 Electric field measuring and display system --- for cloud formations
 [NASA-CASE-KSC-10731-1] c33 N74-27862
 Device for measuring tensile forces
 [NASA-CASE-MFS-21728-1] c35 N74-27865
 Measuring probe position recorder
 [NASA-CASE-LAR-10806-1] c35 N74-32877
 Meter for use in detecting tension in straps having predetermined elastic characteristics
 [NASA-CASE-MFS-22189-1] c35 N75-19615
 Thrust measurement
 [NASA-CASE-XMS-05731] c35 N75-29382
 Method and apparatus for measuring web material wound on a reel
 [NASA-CASE-GSC-11902-1] c38 N77-17495
 Optical instrument employing reticle having preselected visual response pattern formed thereon
 [NASA-CASE-ABC-10976-1] c74 N77-22950
 Direct reading inductance meter
 [NASA-CASE-NPO-13792-1] c35 N77-32455
 Ruler for making navigational computations
 [NASA-CASE-XNP-01458] c04 N78-17031
 Apparatus for handling micron size range particulate material
 [NASA-CASE-NPO-10151] c37 N78-17386
 Apparatus for measuring a sorbate dispersed in a fluid stream
 [NASA-CASE-ABC-10896-1] c35 N78-19465
 Air speed and attitude probe
 [NASA-CASE-FRC-11009-1] c06 N78-25088
 Displacement probes with self-contained exciting medium
 [NASA-CASE-LAR-11690-1] c35 N78-31406

Condition sensor system and method
 [NASA-CASE-MSC-14805-1] c54 N78-32720
 Lightning current waveform measuring system
 [NASA-CASE-KSC-11018-1] c33 N79-10337
 Time domain phase measuring apparatus
 [NASA-CASE-GSC-12228-1] c33 N79-10338
 Fluid velocity measuring device
 [NASA-CASE-LAR-11729-1] c34 N79-12359
 Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in P-N junction solar cells
 [NASA-CASE-NPO-14100-1] c44 N79-12541
 Lightning current detector
 [NASA-CASE-KSC-11057-1] c33 N79-14305
 Borehole geological assessment
 [NASA-CASE-NPO-14231-1] c46 N79-19521
MECHANICAL DEVICES
 Mechanical coordinate converter for use with spacecraft tracking antennas
 [NASA-CASE-XNP-00614] c14 N70-36907
 Load cell protection device using spring-loaded breakaway mechanism
 [NASA-CASE-XMS-06782] c32 N71-15974
 Design and development of satellite despin device
 [NASA-CASE-XNP-08523] c31 N71-20396
 Development of two force component measuring device
 [NASA-CASE-XAC-04886-1] c14 N71-20439
 Design, development, and characteristics of latching mechanism for operation in limited access areas
 [NASA-CASE-XMS-03745] c15 N71-21076
 Design of mechanical device for stirring several test tubes simultaneously
 [NASA-CASE-XAC-06956] c15 N71-21177
 Design and development of random function tracer for obtaining coordinates of points on contour maps
 [NASA-CASE-XLA-01401] c15 N71-21179
 Design and characteristics of device for closing canisters under high vacuum conditions
 [NASA-CASE-XLA-01406] c15 N71-21528
 Development of non-magnetic indexing device for orienting magnetic flux sensing instrument in magnetic field without generation of detrimental magnetic fields
 [NASA-CASE-XGS-02422] c15 N71-21529
 Design and development of module joint clamping device for application to solar array construction
 [NASA-CASE-XNP-02341] c15 N71-21531
 Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
 [NASA-CASE-XMS-07487] c15 N71-23255
 Metal alloy bearing materials for space applications
 [NASA-CASE-XLE-05033] c15 N71-23810
 Mechanical actuator wherein linear motion changes to rotational motion
 [NASA-CASE-XGS-04548] c15 N71-24045
 Design and characteristics of device for showing amount of cable payed out from winch and load imposed
 [NASA-CASE-MSC-12052-1] c15 N71-24599
 Design and development of release mechanism for spacecraft components, releasable despin weights, and extensible gravity booms
 [NASA-CASE-XGS-08718] c15 N71-24600
 Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves
 [NASA-CASE-XLE-04946] c17 N71-24911
 Self lubricating gears and other mechanical parts having surface adapted to frictional contact
 [NASA-CASE-MFS-14971] c15 N71-24984
 Design and development of layout tool for machine shop use to locate point in precise reference to straight or bowed reference edge
 [NASA-CASE-FRC-10005] c15 N71-26145
 Design and development of linear actuator based on bimetallic spring expansion
 [NASA-CASE-NPO-10637] c15 N72-12409
 Characteristics of lightweight actuator for imparting linear motion using elongated output shaft
 [NASA-CASE-NPO-11222] c15 N72-25456

SUBJECT INDEX

MECHANICAL PROPERTIES

- Development of mechanical device for measuring distance of point within sphere from surface of sphere
[NASA-CASE-XLA-06683] c14 N72-28436
- Development of thermal compensating structure which maintains uniform length with changes in temperature
[NASA-CASE-MFS-20433] c15 N72-28496
- Development of mating flat surfaces to inhibit leakage of fluid around shafts
[NASA-CASE-XLE-10326-2] c15 N72-29488
- Development of solar energy powered heliotrope assembly to orient solar array toward sun
[NASA-CASE-GSC-10945-1] c21 N72-31637
- Design and construction of mechanical probe for determining if object is properly secured
[NASA-CASE-MFS-20760] c14 N72-33377
- Development and characteristics of rotary actuator for use on spacecraft to deploy and support pivotal structures such as solar panels
[NASA-CASE-NPO-10680] c31 N73-14855
- Collapsible support for antenna reflector applied to installation of spacecraft antennas
[NASA-CASE-NPO-11751] c07 N73-24176
- Pneumatic foot pedal operated fluidic exercising device
[NASA-CASE-MSC-11561-1] c05 N73-32014
- Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N73-32322
- Reefing system
[NASA-CASE-LAR-10129-2] c37 N74-20063
- Sprag solenoid brake --- development and operations of electrically controlled brake
[NASA-CASE-MFS-21846-1] c37 N74-26976
- Solid medium thermal engine
[NASA-CASE-ARC-10461-1] c44 N74-33379
- Automatic inoculating apparatus --- includes movable carriage, drive motor, and swabbing motor
[NASA-CASE-LAR-11074-1] c51 N75-13502
- Clock setter
[NASA-CASE-LAR-11458-1] c35 N76-16392
- Apparatus for positioning modular components on a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554
- Reel safety brake
[NASA-CASE-GSC-11960-1] c37 N77-14479
- Adjustable chamfering tool
[NASA-CASE-NPO-10857-1] c37 N77-22478
- Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482
- Combined docking and grasping device
[NASA-CASE-MFS-23088-1] c37 N77-23483
- Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694
- Wrist joint assembly
[NASA-CASE-MFS-23311-1] c54 N78-17676
- End effector device --- for manipulators
[NASA-CASE-MFS-23692-1] c54 N78-19773
- Tetherline system for orbiting satellites
[NASA-CASE-MFS-23564-1] c15 N78-25119
- Actuator mechanism
[NASA-CASE-GSC-11883-2] c37 N78-31426
- A coupling device for moving vehicles
[NASA-CASE-GSC-12429-1] c37 N79-19364
- MECHANICAL DRIVES**
- Hydraulic drive mechanism for leveling isolation platforms
[NASA-CASE-XMS-03252] c15 N71-10658
- Antibacklash circuit for hydraulic drive system
[NASA-CASE-XNP-01020] c03 N71-12260
- Precision stepping drive device using cam disk
[NASA-CASE-MFS-14772] c15 N71-17692
- Incremental motion drive system applied to interferometer components
[NASA-CASE-XNP-08897] c15 N71-17694
- Ratchet mechanism for high speed operation at reduced backlash
[NASA-CASE-MFS-12805] c15 N71-17805
- Development of apparatus for automatically changing carriage speed of welding machine to obtain constant speed of torch along work surface
[NASA-CASE-XNP-07069] c15 N71-23815
- Drive system for parabolic tracking antenna with reversible motion and minimal backlash
[NASA-CASE-NPO-10173] c15 N71-24696
- Synchronous dc direct-drive system comprising multiple-loop hybrid control system controlling load directly connected to actuator
[NASA-CASE-GSC-10065-1] c10 N71-27136
- Energy absorption device in high precision gear train for protection against damage to components caused by stop loads
[NASA-CASE-XNP-01848] c15 N71-28959
- Automatic controlled drive mechanism for portable boring bar
[NASA-CASE-XLA-03661] c15 N71-33518
- Rotary actuator for use in environments with no rolling and sliding friction
[NASA-CASE-NPO-10244] c15 N72-26371
- Development and characteristics of rotary actuator for use on spacecraft to deploy and support pivotal structures such as solar panels
[NASA-CASE-NPO-10680] c31 N73-14855
- Optically actuated two position mechanical mover
[NASA-CASE-NPO-13105-1] c37 N74-21060
- Two speed drive system --- mechanical device for changing speed on rotating vehicle wheel
[NASA-CASE-MFS-20645-1] c37 N74-23070
- Concentric differential gearing arrangement
[NASA-CASE-ARC-10462-1] c37 N74-27901
- Geneva mechanism --- including star wheel and driver
[NASA-CASE-NPO-13281-1] c37 N75-13266
- Mechanical thermal motor
[NASA-CASE-MFS-23062-1] c37 N77-12402
- Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking
[NASA-CASE-MFS-23267-1] c35 N77-20401
- Hydraulic drain means for servo-systems
[NASA-CASE-NPO-10316-1] c37 N77-22479
- Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482
- Gas turbine engine with convertible accessories
[NASA-CASE-LEW-12390-1] c07 N78-17056
- Wobble gear drive mechanism --- for aerospace environments
[NASA-CASE-WOO-00625] c37 N78-17385
- Toggle mechanism for pinching metal tubes
[NASA-CASE-GSC-12274-1] c37 N78-25428
- Redundant motor drive system
[NASA-CASE-MFS-23777-1] c37 N78-28460
- Belt for coupling driven members
[NASA-CASE-GSC-12276-1] c37 N78-32429
- Belt for transmitting power from a driving member to a driven member
[NASA-CASE-GSC-12289-1] c37 N78-32435
- Antenna deployment mechanism --- retractable spacecraft antennas
[NASA-CASE-GSC-12331-1] c37 N78-32436
- MECHANICAL ENGINEERING**
- Manual actuator --- for spacecraft exercising machines
[NASA-CASE-MFS-21481-1] c37 N74-18127
- Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441
- MECHANICAL MEASUREMENT**
- Strain gage for detecting and measuring mechanical strain in thermally strained specimens
[NASA-CASE-FRC-10053] c14 N70-35587
- Air brake device for absorbing and measuring power from rotating shafts
[NASA-CASE-XLE-00720] c14 N70-40201
- Water cooled gage for strain measurements in high temperature environments
[NASA-CASE-XNP-09205] c14 N71-17657
- Development of apparatus for measuring successive increments of strain on elastomers
[NASA-CASE-XNP-04680] c15 N71-19489
- Development of Hall effect transducer for converting mechanical shaft rotations into proportional electrical signals
[NASA-CASE-LAR-10620-1] c09 N72-25255
- Strain gage mounting assembly
[NASA-CASE-NPO-13170-1] c35 N76-14430
- MECHANICAL PROPERTIES**
- Test apparatus for determining mechanical properties of refractory materials at high temperatures in vacuum or inert atmospheres
[NASA-CASE-XLE-00335] c14 N70-35368
- Electric resistance spot welding and brazing for producing metal bonds with superior mechanical and structural characteristics

MECHANICS (PHYSICS)

SUBJECT INDEX

[NASA-CASE-LAR-11072-1] c15 N73-20535
MECHANICS (PHYSICS)
 Hovering type flying vehicle design and principle mechanisms for manned or unmanned use [NASA-CASE-MSC-12111-1] c02 N71-11039
MECHANIZATION
 Machine for use in monitoring fatigue life for a plurality of elastomeric specimens [NASA-CASE-NPO-13731-1] c39 N78-10493
MEDICAL ELECTRONICS
 Circuit for detecting initial systole and diastolic notch --- for monitoring arterial pressure [NASA-CASE-LEW-11581-1] c54 N75-13531
MEDICAL EQUIPMENT
 Electromedical garment, applying vectorcardiologic type electrodes to human torsos for data recording during physical activity [NASA-CASE-XPR-10856] c05 N71-11189
 Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments [NASA-CASE-XPR-08403] c05 N71-11202
 Laser machining device with dielectric functioning as beam waveguide for mechanical and medical applications [NASA-CASE-NQN-10541-2] c15 N71-27135
 Zero power telemetry actuated switch for biomedical equipment [NASA-CASE-ARC-10105] c09 N72-17153
 Tilting table for testing human body in variety of positions while exercising on ergometer or other biomedical devices [NASA-CASE-MFS-21010-1] c05 N73-30078
 Automatic device for assaying urine on bacterial adenosine triphosphate content [NASA-CASE-GSC-11169-2] c05 N73-32011
 Servo-controlled intravital microscope system [NASA-CASE-NPO-13214-1] c35 N75-25123
 Heat sterilizable patient ventilator [NASA-CASE-NPO-13313-1] c54 N75-27761
 Medical subject monitoring systems --- multichannel monitoring systems [NASA-CASE-MSC-14180-1] c52 N76-14757
 Locking mechanism for orthopedic braces [NASA-CASE-GSC-12082-1] c54 N76-22914
 Readout electrode assembly for measuring biological impedance [NASA-CASE-ARC-10816-1] c35 N76-24525
 A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer [NASA-CASE-GSC-12081-2] c52 N77-26796
 Corneal seal device [NASA-CASE-LEW-12258-1] c52 N77-28716
 Snap-in compressible biomedical electrode [NASA-CASE-MSC-14623-1] c52 N77-28717
 Tissue macerating instrument [NASA-CASE-LEW-12668-1] c52 N78-14773
 Flow compensating pressure regulator [NASA-CASE-LEW-12718-1] c34 N78-25351
 Apparatus for endoscopic examination [NASA-CASE-NPO-14092-1] c52 N79-19678
MELTING POINTS
 Mixed diamines for lower melting addition polyimide preparation and utilization [NASA-CASE-LAR-12054-1] c27 N78-17218
MELTS (CRYSTAL GROWTH)
 A method and means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains [NASA-CASE-NPO-14298-1] c76 N79-10917
 An improved apparatus for use in the production of ribbon-shaped crystals from a silicon melt [NASA-CASE-NPO-14297-1] c76 N79-10918
MEMBRANE STRUCTURES
 Liquid junction for glass electrode or pH meters [NASA-CASE-NPO-10682] c15 N70-34699
 Expulsion and measuring device for determining quantity of liquid in tank under conditions of weightlessness [NASA-CASE-XMS-01546] c14 N70-40233
 Flexible composite membrane structure impervious to extremely reactive chemicals in rocket propellants [NASA-CASE-XNP-08837] c18 N71-16210
 Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or

indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants [NASA-CASE-XNP-08881] c17 N71-28747
 Meteoroid capture cell construction [NASA-CASE-MSC-12423-1] c91 N76-30131
MEMBRANES
 Apparatus for measuring polymer membrane expansion in electrochemical cells [NASA-CASE-XGS-03865] c14 N69-21363
 Separation cell with permeable membranes for fluid mixture component separation [NASA-CASE-XMS-02952] c18 N71-10742
 Water insoluble, cationic permselective membrane [NASA-CASE-NPO-11091] c18 N72-22561
 A reverse osmosis membrane of high urea rejection properties [NASA-CASE-ARC-10980-1] c27 N77-18265
 Dual membrane hollow fiber fuel cell and method of operating same [NASA-CASE-NPO-13732-1] c44 N79-10513
 Microelectrophoretic apparatus and process [NASA-CASE-ARC-11121-1] c25 N79-14169
MEMORY
 Method for making conductors for ferrite memory arrays --- from pre-formed metal conductors [NASA-CASE-LAR-10994-1] c24 N75-13032
MERCURY (METAL)
 Interrupter switching device utilizing electrodes and mercury filled capillary tubes in which current flow vaporizes mercury as circuit breaker [NASA-CASE-XNP-02251] c12 N71-20896
 Method of forming ceramic to metal seals impervious to gaseous and liquid mercury at high temperature [NASA-CASE-XNP-01263-2] c15 N71-26312
 Development of system for delivering vaporized mercury to electron bombardment ion engine [NASA-CASE-NPO-10737] c28 N72-11709
MERCURY VAPOR
 Interrupter switching device utilizing electrodes and mercury filled capillary tubes in which current flow vaporizes mercury as circuit breaker [NASA-CASE-XNP-02251] c12 N71-20896
 Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor [NASA-CASE-XNP-02862-1] c15 N71-26294
METABOLIC WASTES
 Cooling system for removing metabolic heat from an hermetically sealed spacesuit [NASA-CASE-ARC-11059-1] c54 N78-32721
METABOLISM
 Automated analysis of oxidative metabolites [NASA-CASE-ARC-10469-1] c25 N75-12086
 Process for control of cell division [NASA-CASE-LAR-10773-3] c51 N77-25769
 Metabolic rate meter and method [NASA-CASE-MSC-12239-1] c52 N79-21750
METAL BONDING
 Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes [NASA-CASE-XGS-04554] c15 N69-39786
 Plasma spraying gun for forming diffusion bonded metal or ceramic coatings on substrates [NASA-CASE-XLB-01604-2] c15 N71-15610
 Describing metal valve pintle with encapsulated elastomeric body [NASA-CASE-MSC-12116-1] c15 N71-17648
 Apparatus for determining quality of bond between high density material and low density material [NASA-CASE-MFS-13686] c15 N71-18132
 Metal soldering with hydrazine monoperfluoro alkanoate for corrosion resistant coatings [NASA-CASE-XNP-03459] c15 N71-21078
 Leak resistant bonded elastomeric seal for secondary electrochemical cells [NASA-CASE-XGS-02631] c03 N71-23006
 Metal pattern bonding technique for cover glass attachment to silicon solar cells for space applications [NASA-CASE-XLB-08569] c03 N71-23449
 Development of electrical system for indicating optimum contact between electrode and metal surface to permit improved soldering operation

SUBJECT INDEX

METAL MATRIX COMPOSITES

[NASA-CASE-KSC-10242] c15 N72-23497
Development of process for bonding resinous body
in cavities of honeycomb structures
[NASA-CASE-MSC-12357] c15 N73-12489
Electric resistance spot welding and brazing for
producing metal bonds with superior mechanical
and structural characteristics
[NASA-CASE-LAR-11072-1] c15 N73-20535
Totally confined explosive welding --- apparatus
to reduce noise level and protect personnel
during explosive bonding
[NASA-CASE-LAR-10941-1] c37 N74-21057
Ultrasonically bonded valve assembly
[NASA-CASE-NPO-13360-1] c37 N75-25185
Bimetallic junctions
[NASA-CASE-LEW-11573-1] c26 N77-28265
Method and apparatus for holding two separate
metal pieces together for welding
[NASA-CASE-GSC-12318-1] c37 N78-23434
Heat exchanger and method of making --- bonding
rocket chambers with a porous metal matrix
[NASA-CASE-LEW-12441-1] c34 N79-13289
Totally confined explosive welding
[NASA-CASE-LAR-10941-2] c37 N79-13364
A heat exchanger and method of making --- rocket
lining
[NASA-CASE-LEW-12441-2] c34 N79-21313

METAL COATINGS
Joining aluminum to stainless steel by bonding
aluminum coatings onto titanium coated
stainless steel and brazing aluminum to
aluminum/titanium coated steel
[NASA-CASE-MPS-07369] c15 N71-20443
Metal soldering with hydrazine monoperfluoro
alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078
Low concentration alkaline solution treatment of
aluminum with metal phosphate surface coatings
to improve chemical bonding and reduce coating
weight
[NASA-CASE-XLA-01995] c18 N71-23047
Organometallic compounds of niobium and tantalum
useful for film deposition
[NASA-CASE-XNP-04023] c06 N71-28808
Silicide coating process and composition for
protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040
Selective nickel deposition on irradiation
sensitive compounds
[NASA-CASE-LEW-10965-1] c15 N72-25452
Silicon carbide backward diode with coated lead
attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150
Panel for selectively absorbing solar thermal
energy and the method of producing said panel
[NASA-CASE-MPS-22562-1] c44 N76-14595
Ultraviolet light reflective coating
[NASA-CASE-GSC-11786-1] c24 N76-24363
Metallic hot wire anemometer --- for high speed
wind tunnel tests
[NASA-CASE-ARC-10911-1] c35 N77-20400
Solar cell collector
[NASA-CASE-LEW-12552-1] c44 N78-25527
Electromagnetic radiation energy arrangement ---
coatings for solar energy absorption and
infrared reflection
[NASA-CASE-WOO-00428-1] c32 N79-19186

METAL CUTTING
Metal shearing energy absorber
[NASA-CASE-HQN-10638-1] c15 N73-30460
Vee-notching device --- with adjustable carriage
[NASA-CASE-MPS-20730-1] c39 N74-13131
Hole cutter --- drill bits and rotating shaft
[NASA-CASE-MPS-22649-1] c37 N75-25186
Method and tool for machining a transverse slot
about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249

METAL FIBERS
Lightweight electrically-powered flexible
thermal laminate --- made of metal and
nonconductive yarns
[NASA-CASE-MSC-12662-1] c33 N79-12331
A method and technique for installing
light-weight fragile, high-temperature fiber
insulation --- sealing recoverable spacecraft
[NASA-CASE-MSC-16934-1] c24 N79-16923

METAL FILMS
Means and methods of depositing thin films on
substrates

[NASA-CASE-XNP-00595] c15 N70-34967
Metallic film diffusion into metal or ceramic
surfaces for boundary lubrication in aerospace
environments
[NASA-CASE-XLE-01765] c18 N71-10772
Bismuth and lead surface coatings for gas
bearings in aerospace engineering
[NASA-CASE-XGS-02011] c15 N71-20739
Metallic film diffusion for boundary lubrication
in aerospace engineering
[NASA-CASE-XLE-10337] c15 N71-24046
Magnetic recording head composed of ferrite core
coated with thin film of aluminum-iron-silicon
alloy
[NASA-CASE-GSC-10097-1] c08 N71-27210
Thin absorbing metallic film for increased
visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-27784
Deposition of alloy films --- on irregularly
shaped metal object
[NASA-CASE-LEW-11262-1] c27 N74-13270
Multitarget sequential sputtering apparatus
[NASA-CASE-NPO-13345-1] c37 N75-19684
Strong thin membrane structure
[NASA-CASE-NPO-14021-1] c27 N77-32313
Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436
Photomechanical transducer --- using thin strips
of photoabsorptive metal or polymeric film
with strain gages
[NASA-CASE-NPO-14363-1] c76 N79-14908

METAL FINISHING
Selective plating of etched circuits without
removing previous plating
[NASA-CASE-XGS-03120] c15 N71-24047
Surface finishing --- for aircraft wings
[NASA-CASE-MSC-12631-1] c24 N77-28225

METAL FOILS
Characteristics of device for folding thin
flexible sheets into compact configuration
[NASA-CASE-XLA-00137] c15 N70-33180
Passive thermal control coating on aluminum foil
laminate for inflatable spacecraft surfaces
[NASA-CASE-XLA-01291] c33 N70-36617
Development and characteristics of thermal
radiation shielding of refractory metal foil
used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145
Method of making porous conductive supports for
electrodes --- by electroforming and stacking
nickel foils
[NASA-CASE-GSC-11367-1] c44 N74-19692
Method and apparatus for tensile testing of
metal foil
[NASA-CASE-LAR-10208-1] c35 N76-18400

METAL FUELS
Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209

METAL HALIDES
Process for making anhydrous metal halides
[NASA-CASE-LEW-11860-1] c37 N76-18458

METAL HYDRIDES
Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

METAL IONS
Chemical synthesis of thermally stable
organometallic polymers with divalent metal
ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-10364] c06 N71-27363

METAL JOINTS
Leakproof soft metal seal for use in very high
vacuum systems operating at cryogenic
temperatures
[NASA-CASE-XGS-02441] c15 N70-41629
Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536
Method of cold welding using ion beam technology
[NASA-CASE-LEW-12982-1] c37 N78-28459

METAL MATRIX COMPOSITES
High strength reinforced metallic composites for
applications over wide temperature range
[NASA-CASE-XLE-02428] c17 N70-33288
Process for producing dispersion strengthened
nickel with aluminum comprising metallic
matrices embedded with oxides or other
hyperfine compounds
[NASA-CASE-XLE-06969] c17 N71-24142
Self lubricating gears and other mechanical
parts having surface adapted to frictional

contact
[NASA-CASE-NFS-14971] c15 N71-24984

Development of procedure for improved distribution of refractory compounds and micro-constituents in refractory metal matrix
[NASA-CASE-XLE-03940-2] c17 N72-28536

Method of preparing graphite reinforced aluminum composite
[NASA-CASE-NFS-21077-1] c24 N75-28135

Method of making reinforced composite structure
[NASA-CASE-XLE-12619-1] c24 N77-19171

Fuselage structure using advanced technology metal matrix fiber reinforced composites
[NASA-CASE-LAR-1688-1] c05 N78-18045

Heat exchanger and method of making --- bonding rocket chambers with a porous metal matrix
[NASA-CASE-XLE-12441-1] c34 N79-13289

METAL OXIDE SEMICONDUCTORS

Gyrator circuit using MOS field effect transistors
[NASA-CASE-NFS-21433] c09 N73-20232

Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential of field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329

Integrated P-channel MOS gyrator
[NASA-CASE-NFS-22343-1] c33 N74-34638

Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential
[NASA-CASE-GSC-11425-2] c76 N75-25730

Solar cell collector
[NASA-CASE-XLE-12552-1] c44 N78-25527

Multilevel metallization method for fabricating a metal oxide semiconductor device
[NASA-CASE-NFS-23541-1] c76 N79-14906

METAL OXIDES

Process for producing dispersion strengthened nickel with aluminum comprising metallic matrices embedded with oxides or other hyperfine compounds
[NASA-CASE-XLE-06969] c17 N71-24142

Photofabrication techniques for selective removal of conductive metals oxide coatings from nonconductive substrates
[NASA-CASE-ERC-10108] c06 N72-21094

Producing metal powders of controlled particle size by reducing oxide using reactive metal vapor in vacuum
[NASA-CASE-XLE-06461] c17 N72-22530

Method for obtaining oxygen from lunar or similar soil
[NASA-CASE-MSC-12408-1] c46 N74-13011

METAL PARTICLES

Magnetohydrodynamic generator for mixing nonconductive gas and liquid metal mist to form slugs
[NASA-CASE-XLE-02083] c03 N69-39983

Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-XLE-10219-1] c18 N71-28729

Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209

METAL PLATES

Development of large area micrometeoroid impact detector panels
[NASA-CASE-XLA-05906] c31 N71-16221

Tungsten-coated tungsten-uranium dioxide nuclear fuel plates
[NASA-CASE-XLE-00209] c22 N73-32528

Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264

METAL POWDER

Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders
[NASA-CASE-XLE-10393-1] c17 N71-15468

Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
[NASA-CASE-XMS-01625] c15 N71-23022

Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves
[NASA-CASE-XLE-04946] c17 N71-24911

Method to produce high purity copper fluoride by heating copper hydroxyfluoride powder and subjecting to flowing fluorine gas

[NASA-CASE-XLE-10794-1] c06 N72-17093

Producing metal powders of controlled particle size by reducing oxide using reactive metal vapor in vacuum
[NASA-CASE-XLE-06461] c17 N72-22530

Development of apparatus for producing metal powder particles of controlled size
[NASA-CASE-XLE-06461-2] c17 N72-28535

Metal plating process employing spraying of metallic power/peening particle mixture
[NASA-CASE-GSC-11163-1] c15 N73-32360

METAL SHEETS

Fatigue testing apparatus with light shield and infrared reflector for high temperature evaluation of loaded sheet samples
[NASA-CASE-XLA-01782] c14 N71-26136

Method of making pressure tight-seal for super alloy
[NASA-CASE-LAR-10170-1] c37 N74-11301

Method of making an explosively welded scarf joint
[NASA-CASE-LAR-11211-1] c37 N75-12326

Process for making sheets with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c37 N75-26371

Apparatus for welding sheet material --- butt joints
[NASA-CASE-XMS-01330] c37 N75-27376

METAL SPINNING

Apparatus and method for spin forming tubular elbows with high strength, uniform thickness, and close tolerances
[NASA-CASE-XNP-01083] c15 N71-22723

METAL STRIPS

Metal ribbon wrapped outer wall for regeneratively cooled combustion chamber
[NASA-CASE-XLE-00164] c15 N70-36411

Metal strip mounting arrangement for solar cell arrays on spacecraft
[NASA-CASE-XGS-01475] c03 N71-11058

Forming tubes from long thin flat metal strips
[NASA-CASE-XGS-04175] c15 N71-18579

High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways
[NASA-CASE-ARC-10516-1] c70 N74-21300

METAL SURFACES

Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465

Nickel plating onto etched aluminum castings
[NASA-CASE-XNP-04148] c17 N71-24830

High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
[NASA-CASE-XLA-06199] c15 N71-24875

Method for treating metal surfaces to prevent secondary electron transmission
[NASA-CASE-XNP-09469] c24 N71-25555

Method of forming ceramic to metal seals impervious to gaseous and liquid mercury at high temperature
[NASA-CASE-XNP-01263-2] c15 N71-26312

Anodizing method for providing metal surfaces with temperature reducing coatings against flames
[NASA-CASE-XLE-00035] c33 N71-29151

Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels
[NASA-CASE-NPO-10617-1] c35 N74-22095

Surface finishing --- adhesive bonding of plastic film to metal airfoil surfaces
[NASA-CASE-MSC-12631-3] c26 N79-21183

METAL VAPORS

Magnetohydrodynamic generator for mixing nonconductive gas and liquid metal mist to form slugs
[NASA-CASE-XLE-02083] c03 N69-39983

Apparatus for producing hydrocarbon slurry containing small particles of magnesium for use as jet aircraft fuel
[NASA-CASE-XLE-00010] c15 N70-33382

Inert gas metallic vapor laser
[NASA-CASE-NPO-13449-1] c36 N75-32441

Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

METAL WORKING

Controlled arc spot welding method

SUBJECT INDEX

MICROBIOLOGY

- [NASA-CASE-XMF-00392] c15 N70-34814
Method and apparatus for shaping and joining large diameter metal tubes using magnetomotive forces
- [NASA-CASE-XMF-05114] c15 N71-17650
Description of protective device for providing safe operating conditions around work piece in machine or metal working tool
- [NASA-CASE-XLE-01092] c15 N71-22797
Description of portable milling tool for milling tube or pipe ends to desired shape and thickness
- [NASA-CASE-XMF-03511] c15 N71-22799
Development and characteristics of frusto-conical die nib for extrusion of refractory metals
- [NASA-CASE-XLE-06773] c15 N71-23817
Portable magnetomotive hammer for metal working
- [NASA-CASE-XMF-03793] c15 N71-24833
Method and apparatus for portable high precision magnetomotive bulging, constricting, and joining of large diameter metal tubes
- [NASA-CASE-XMF-05114-3] c15 N71-24865
Insert facing tool --- manually operated cutting tool for forming studs in honeycomb material
- [NASA-CASE-MFS-21485-1] c37 N74-25968
Apparatus for forming dish ion thruster grids
- [NASA-CASE-LEW-11694-2] c37 N76-14461
Liquid reactant feeder for arc assisted metal reduction reactor
- [NASA-CASE-NPO-14382-1] c25 N78-22186
- METAL-METAL BONDING**
Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
- [NASA-CASE-MFS-07369] c15 N71-20443
Method for honeycomb panel bonding by thermosetting film adhesive with electrical heat means
- [NASA-CASE-XMF-01402] c18 N71-21651
Capillary flow weld-bonding
- [NASA-CASE-LAR-11726-1] c37 N76-27568
- METALLIZING**
Multilevel metallization method for fabricating a metal oxide semiconductor device
- [NASA-CASE-MFS-23541-1] c76 N79-14906
- METALLOGRAPHY**
Development of method for etching copper
- [NASA-CASE-XGS-06306] c17 N71-16044
- METALLOSILOXANE POLYMER**
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids
- [NASA-CASE-MFS-22411-1] c37 N74-21058
- METALLURGY**
Induction heating of metallurgical specimens to high temperatures in coil furnace
- [NASA-CASE-XLE-04026] c14 N71-23267
A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control
- [NASA-CASE-NPO-14474-1] c26 N78-27255
- METALS**
Transpiration cooled turbine blade made from metallic or ceramic wires
- [NASA-CASE-XLE-00020] c15 N70-33226
Self lubricating fluoride-metal composite materials for outer space applications
- [NASA-CASE-XLE-08511] c18 N71-23710
Punch and die device for forming convolution series in thin gage metal hemispheres
- [NASA-CASE-XMF-05297] c15 N71-23811
Device for bending metal ribbon or wire
- [NASA-CASE-XLA-05966] c15 N72-12408
Metal plating process employing spraying of metallic power/peening particle mixture
- [NASA-CASE-GSC-11163-1] c15 N73-32360
Glass-to-metal seals comprising relatively high expansion metals
- [NASA-CASE-LEW-10698-1] c37 N74-21063
Scanning nozzle plating system --- for etching or plating metals on substrates without masking
- [NASA-CASE-NPO-11758-1] c31 N74-23065
Production of pure metals
- [NASA-CASE-LEW-10906-1] c25 N74-30502
Thermocouple tape --- developed from thermoelectrically different metals
- [NASA-CASE-LEW-11072-2] c35 N76-15434
Method of forming shrink-fit compression seal
- [NASA-CASE-LAR-11563-1] c37 N77-23482
- Antiaircraft system and method employing small projectiles
- [NASA-CASE-FRC-11006-1] c99 N79-10995
Solar cells having integral collector grids
- [NASA-CASE-LEW-12819-1] c44 N79-11467
- METASTABLE STATE**
Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
- [NASA-CASE-NPO-13993-1] c72 N79-13826
- METEORITE COLLISIONS**
Pressurized panel meteoroid detector
- [NASA-CASE-XLA-08916-2] c14 N73-28487
Method of and device for determining the characteristics and flux distribution of micrometeorites --- scanning puncture holes in sheet material with photoelectric cell
- [NASA-CASE-NPO-12127-1] c91 N74-13130
- METEORITES**
Method for making pressurized meteoroid penetration detector panels
- [NASA-CASE-XLA-08916] c15 N71-29018
- METEORITIC DAMAGE**
Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
- [NASA-CASE-XLE-01246] c14 N71-10797
- METEOROID HAZARDS**
Meteoroid impact position locator aid for manned space station
- [NASA-CASE-LAR-10629-1] c35 N75-33367
- METEOROID PROTECTION**
Development and characteristics of protective coatings for spacecraft
- [NASA-CASE-XMF-02507] c31 N71-17679
Development of composite structures for spacecraft to serve as anti-meteoroid device
- [NASA-CASE-LAR-10788-1] c31 N73-20880
- METEOROLIDS**
Cameras for photographing meteors in selected sky area
- [NASA-CASE-LAR-10226-1] c14 N73-19419
Meteoroid capture cell construction
- [NASA-CASE-MSC-12423-1] c91 N76-30131
- METEOROLOGICAL BALLOONS**
Aerodynamically stable meteorological balloon using surface roughness effect
- [NASA-CASE-XMF-04163] c02 N71-23007
- METHANE**
High temperature gas lubricant consisting of two fluoro-bromo-methanes
- [NASA-CASE-XLE-00353] c18 N70-39897
- MICE**
Micro-fluid exchange coupling apparatus --- a microrespirator to allow surgery on rats or mice
- [NASA-CASE-ABC-11114-1] c52 N78-33717
- NICHOLSON INTERFEROMETERS**
Michelson interferometer with photodetector for optical direction sensing
- [NASA-CASE-NPO-10320] c14 N71-17655
Servo system for retroreflector of Michelson interferometer
- [NASA-CASE-NPO-10300] c14 N71-17662
Computerized optical system for producing multiple images of a scene simultaneously
- [NASA-CASE-MSC-12404-1] c23 N73-13661
Interferometer mirror tilt correcting system
- [NASA-CASE-NPO-13687-1] c35 N78-18391
- MICROANALYSIS**
Plural output optometric sample cell and analysis system
- [NASA-CASE-NPO-10233-1] c74 N78-33913
- MICROBALANCES**
Null-type vacuum microbalance for measuring minute mechanical displacements
- [NASA-CASE-XAC-00472] c15 N70-40180
Microbalance --- for measuring particle mass
- [NASA-CASE-MSC-11242] c35 N78-17358
- MICROBIOLOGY**
Development of variable angle device for positioning test tubes to permit optimum drying of culture medium
- [NASA-CASE-LAR-10507-1] c11 N72-25284
Apparatus for microbiological sampling --- including automatic swabbing
- [NASA-CASE-LAR-11069-1] c35 N75-12272
Automatic inoculating apparatus --- includes movable carriage, drive motor, and swabbing motor

MICROCRACKS

SUBJECT INDEX

[NASA-CASE-LAR-11074-1] c51 N75-13502
Automatic microbial transfer device
[NASA-CASE-LAR-11354-1] c35 N75-27330
Application of luciferase assay for
antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794

MICROCRACKS

A system for detecting substructure
microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556

MICROELECTRONICS

Separation of semiconductor wafer into chips
bounded by scribe lines
[NASA-CASE-ERC-10138] c26 N71-14354
Vibrophonocardiograph comprising low weight and
small volume piezoelectric microphone with
amplifier having high input impedance for high
sensitivity and low frequency response
[NASA-CASE-YFR-07172] c05 N71-27234
Electrical connections for thin film hybrid
microcircuits
[NASA-CASE-XMS-02182] c10 N71-28783
Method for coating through-holes in ceramic
substrates used in fabricating miniaturized
electronic circuits
[NASA-CASE-YMP-05999] c15 N71-29032
Precision surface cutter for screen circuit
negatives and other microcircuits
[NASA-CASE-XLA-09843] c15 N72-27485
Material compositions and processes for
developing dielectric thick films used in
microcircuit capacitors
[NASA-CASE-LAR-10294-1] c26 N72-28762
Active tuned circuits for microelectronic
construction
[NASA-CASE-GSC-11340-1] c10 N72-33230
Automatic visual inspection system for
microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396

MICROFILMS

Apparatus for semiautomatic inspection of
microfilmed documents for density, resolution,
size, and position
[NASA-CASE-NFS-20240] c14 N71-26788

MICROINSTRUMENTATION

Apparatus for handling micron size range
particulate material
[NASA-CASE-NPO-10151] c37 N78-17386

MICROMETEORITES

Method of and device for determining the
characteristics and flux distribution of
micrometeorites --- scanning puncture holes in
sheet material with photoelectric cell
[NASA-CASE-NPO-12127-1] c91 N74-13130
Micrometeoroid velocity and trajectory analyzer
[NASA-CASE-GSC-11892-1] c35 N76-15433

MICROMETEORITIDS

Particle detector for measuring micrometeoroid
velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332
Piezoelectric transducer for detecting and
measuring micrometeoroids
[NASA-CASE-XAC-01101] c14 N70-41957
Pressurized cell micrometeoroid detector
[NASA-CASE-XLA-00936] c14 N71-14996
Development of large area micrometeoroid impact
detector panels
[NASA-CASE-XLA-05906] c31 N71-16221
Rotary bead dropper and selector for testing
micrometeorite transducers
[NASA-CASE-XGS-03304] c09 N71-22988
Measuring micrometeoroid depth of penetration
into various materials
[NASA-CASE-XLA-00941] c14 N71-23240
Structure of fabric layers for micrometeoroid
protection garment with capability for
eliminating heat shorts for use in
manufacturing space suits
[NASA-CASE-HSC-12109] c18 N71-26285
Micrometeoroid analyzer using arrays of
interconnected capacitors and ion detector
[NASA-CASE-ARC-10443-1] c14 N73-20477
Cold cathode discharge tube with pressurized gas
cell for meteoroid detection in space
[NASA-CASE-LAR-10483-1] c14 N73-32327
Deployable pressurized cell structure for a
micrometeoroid detector
[NASA-CASE-LAR-10295-1] c35 N74-21062

Semiconductor projectile impact detector
[NASA-CASE-NFS-23008-1] c35 N78-18390

MICROMETERS

Apparatus for handling micron size range
particulate material
[NASA-CASE-NPO-10151] c37 N78-17386

MICROMINIATURIZATION

Miniaturized radiometer for detecting low level
thermal radiation
[NASA-CASE-XLA-04556] c14 N69-27484

MICROORGANISMS

Development of bacteriostatic conformal coating
and methods of application
[NASA-CASE-GSC-10007] c18 N71-16046
Portable vacuum probe surface sampler for
sampling large surface areas with relatively
light loading densities of microorganisms
[NASA-CASE-LAR-10623-1] c14 N73-30395
Measurement of gas production of microorganisms
--- using pressure sensors
[NASA-CASE-LAR-11326-1] c35 N75-33368
Electrochemical data signal process and display
[NASA-CASE-LAR-11922-1] c25 N78-17171

MICROPARTICLES

Micropacked column for rapid chromatographic
analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936

MICROPHONES

Audio signal processing system for noise surge
elimination at low amplitude audio input
[NASA-CASE-MSC-12223-1] c07 N71-26181
Vibrophonocardiograph comprising low weight and
small volume piezoelectric microphone with
amplifier having high input impedance for high
sensitivity and low frequency response
[NASA-CASE-YFR-07172] c05 N71-27234
Development of wind tunnel microphone structure
to minimize effects of vibrations and
eliminate unwanted signals in microphone output
[NASA-CASE-XNP-00250] c11 N71-28779
Adjustable frequency response microphone
[NASA-CASE-LAR-11170-1] c32 N74-12843
High-temperature microphone system
[NASA-CASE-LAR-12375-1] c32 N78-23275

MICROPROCESSORS

Microcomputerized electric field meter
diagnostic and calibration system
[NASA-CASE-KSC-11035-1] c35 N78-28411

MICROSCOPES

Absolute focus locking device for microscopes to
maintain set focus for extended time period
[NASA-CASE-LAR-10184] c14 N72-22445
Hand-held, lightweight, portable photomicroscope
[NASA-CASE-ARC-10468-1] c14 N73-33361

MICROSTRIP TRANSMISSION LINES

Thin conformal antenna array for microwave power
conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391

MICROSTRUCTURE

Production of high strength refractory compounds
and microconstituents into refractory metal
matrix
[NASA-CASE-XLE-03940] c18 N71-26153
Development of procedure for improved
distribution of refractory compounds and
micro-constituents in refractory metal matrix
[NASA-CASE-XLE-03940-2] c17 N72-28536
Diffusion welding --- heat treatment of nickel
alloys following single step vacuum welding
process
[NASA-CASE-LEW-11388-2] c37 N74-21055
Method of determining bond quality of power
transistors attached to substrates --- X ray
inspection of junction microstructure
[NASA-CASE-NFS-21931-1] c37 N75-26372
Preparation of monotectic alloys having a
controlled microstructure by directional
solidification under dopant-induced interface
breakdown
[NASA-CASE-NFS-23816-1] c26 N79-16943

MICROTHRUST

Electrostatic microthrust propulsion system with
annular slit colloid thruster
[NASA-CASE-GSC-10709-1] c28 N71-25213
Heated porous plug microthruster for spacecraft
reaction jet controlled systems such as fuel
flow regulation, propellant disassociation,
and heat transfer augmentation
[NASA-CASE-GSC-10640-1] c28 N72-18766

MICROWAVE AMPLIFIERS

Thermally sensitive tuning probe for nullifying detuning effects in microwave cavity resonator of amplifier
[NASA-CASE-XNP-00449] c14 N70-35220

MICROWAVE ANTENNAS

Microwave power receiving antenna solving heat dissipation problems by construction of elements as heat pipe devices
[NASA-CASE-NPS-20333] c09 N71-13486

Development and characteristics of low-noise multimode monopulse antenna feed system for use with microwave communication equipment
[NASA-CASE-XNP-01735] c07 N71-22750

Microwave omnidirectional antenna for use on spacecraft
[NASA-CASE-XLA-03114] c09 N71-22888

Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292

Multipurpose microwave antenna, employing dish reflector with plural coaxial horn feeds
[NASA-CASE-NPO-11264] c07 N72-25174

Omnidirectional antenna array with circumferential slots for mounting on cylindrical space vehicle
[NASA-CASE-LAR-10163-1] c09 N72-25247

Characteristics of microwave antenna with conical reflectors to generate plane wave front
[NASA-CASE-NPO-11661] c07 N73-14130

Dual frequency circularly polarized microwave integrated antenna
[NASA-CASE-MSC-16100-1] c32 N77-15233

Thin conformal antenna array for microwave power conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391

MICROWAVE CIRCUITS

Quasi-optical microwave circuit with dielectric body for use with oversize waveguides
[NASA-CASE-ERC-10011] c07 N71-29065

Microwave integrated circuit for Josephson voltage standards
[NASA-CASE-NPS-23845-1] c33 N78-32347

MICROWAVE COUPLING

Microwave waveguide switch with rotor position control
[NASA-CASE-XNP-06507] c09 N71-23548

MICROWAVE EQUIPMENT

Apparatus for generating microwave signals at progressively related phase angles for driving antenna array
[NASA-CASE-ERC-10046] c10 N71-18722

Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-XNP-08880] c09 N71-24808

Dual frequency feed systems for Cassegrainian antennas
[NASA-CASE-NPO-13091-1] c09 N73-12214

Resonant waveguide stark cell --- using microwave spectrometers
[NASA-CASE-LAR-11352-1] c33 N75-26245

Refrigerated coaxial coupling --- for microwave equipment
[NASA-CASE-NPO-13504-1] c33 N75-30430

Microwave dichroic plate
[NASA-CASE-GSC-12171-1] c33 N78-18313

MICROWAVE FILTERS

Microwave power divider for providing variable output power to output waveguide in fixed waveguide system
[NASA-CASE-NPO-11031] c07 N71-33606

Selective bandpass resonators using bandstop resonator pairs for microwave frequency operation
[NASA-CASE-GSC-10990-1] c09 N73-26195

MICROWAVE FREQUENCIES

Varactor microwave frequency mixing circuit
[NASA-CASE-IGS-02171] c09 N69-24324

Voltage tunable Gunn effect semiconductor for microwave generation
[NASA-CASE-XER-07894] c09 N71-18721

Multimode antenna feed system for microwave and broadband communication
[NASA-CASE-GSC-11046-1] c07 N73-28013

MICROWAVE OSCILLATORS

Microwave generator using Gunn effect for magnetic tuning
[NASA-CASE-NPO-12106] c09 N73-15235

Electron beam controller --- using magnetic field to refocus spent electron beam in microwave oscillator tube
[NASA-CASE-LEW-11617-1] c33 N74-10195

MICROWAVE RADIOMETERS

Input radio frequency circuit for switching type absolute temperature measuring radiometer for noise sources
[NASA-CASE-ERC-11020] c14 N71-26774

MICROWAVE REFLECTOMETERS

Reflectometer for receiver input impedance match measurement
[NASA-CASE-XNP-10843] c07 N71-11267

Surface defect detection by reflected microwave radiation pattern
[NASA-CASE-ARC-10009-1] c15 N71-17822

MICROWAVE RESONANCE

Microwave double resonance spectroscopy absorption cell for gas analysis
[NASA-CASE-LAR-10305] c14 N71-26137

MICROWAVE SENSORS

Microwave power transmission beam safety system
[NASA-CASE-NPO-14224-1] c32 N79-10271

MICROWAVE SWITCHING

Design of gyrator circuit using operational amplifiers to replace ungrounded inductors
[NASA-CASE-XAC-10608-1] c09 N71-12517

MICROWAVE TRANSMISSION

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

Microwave power transmission beam safety system
[NASA-CASE-NPO-14224-1] c32 N79-10271

MICROWAVE TUBES

Electrostatic charged particle collector containing stacked electrodes for microwave tube
[NASA-CASE-LEW-11192-1] c09 N73-13208

MICROWAVES

Radio frequency noise generator having microwave slow-wave structure in gas discharge plasma
[NASA-CASE-XER-11019] c09 N71-23598

Method and apparatus for optically modulating light or microwave beam
[NASA-CASE-GSC-10216-1] c23 N71-26722

Microwave waveguide mixer
[NASA-CASE-ERC-10179] c07 N72-20141

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver
[NASA-CASE-NPS-21470-1] c44 N74-19870

Wide power range microwave feedback controller
[NASA-CASE-GSC-12146-1] c33 N78-32340

MIDAIR COLLISIONS

Economical satellite aided vehicle avoidance system for preventing midair collisions
[NASA-CASE-ERC-10419] c21 N72-21631

Development and characteristics of electronic signalling system and data processing equipment for warning systems to avoid midair collisions between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641

MILLIMETER WAVES

Millimeter wave antenna system for spacecraft use
[NASA-CASE-GSC-10949-1] c07 N71-28965

Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

MILLING (MACHINING)

Rotary spindle lathe attachments for machining geometrical cones
[NASA-CASE-XMS-04292] c15 N71-22722

MILLING MACHINES

Electro-optical system for maintaining two-axis alignment during milling operations on large tank-sections
[NASA-CASE-XNP-00908] c14 N70-40238

Description of portable milling tool for milling tube or pipe ends to desired shape and thickness
[NASA-CASE-XNP-03511] c15 N71-22799

Grinding arrangement for ball nose milling cutters
[NASA-CASE-LAR-10450-1] c37 N74-27905

MINERAL DEPOSITS

Underground mineral extraction
[NASA-CASE-NPO-14140-1] c31 N78-24387

MINERAL METABOLISM

Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737

MINIATURE ELECTRONIC EQUIPMENT

Miniature solid state, direction sensitive, stress transducer design with bonded

MINIATURIZATION

SUBJECT INDEX

semiconductive piezoresistive element for sensing residual stresses
[NASA-CASE-INP-02983] c14 N71-21091

Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ABC-10132-1] c09 N71-24597

Solid state television camera system consisting of monolithic semiconductor mosaic sensor and molecular digital readout systems
[NASA-CASE-INP-06092] c07 N71-24612

Miniature ingestible telemeter devices to measure deep-body temperature
[NASA-CASE-ABC-10583-1] c52 N76-29894

Miniature biaxial strain transducer
[NASA-CASE-LAR-11648-1] c35 N77-14407

MINIATURIZATION

Miniature vibration isolator utilizing elastic tubing material
[NASA-CASE-XLA-01019] c15 N70-40156

Computer circuit performing both counting and shifting logic operations also capable of miniaturization and integration in basic circuits
[NASA-CASE-INP-01753] c08 N71-22897

Fast response miniature carbon dioxide detector with no moving parts for measuring concentration in any atmosphere
[NASA-CASE-MSC-13332-1] c14 N72-21408

Magnetometer with a miniature transducer and automatic scanning
[NASA-CASE-LAR-11617-2] c35 N78-32397

MIXING

Underground mineral extraction
[NASA-CASE-NPO-14140-1] c31 N78-24387

MIRRORS

Pneumatic control of telescopic mirror support system
[NASA-CASE-XLA-03271] c11 N69-24321

Oscillatory electromagnetic mirror drive system for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461

Servo system for retroreflector of Michelson interferometer
[NASA-CASE-NPO-10300] c14 N71-17662

Gas laser frequency stabilized by position of mirrors in resonant cavity
[NASA-CASE-IGS-03644] c16 N71-18614

Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
[NASA-CASE-EHC-10001] c23 N71-24868

Adjustable rigid mount for trihedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
[NASA-CASE-INP-08907] c23 N71-29123

Optical range finder using reflective first surfaces mirror and transmitting beam splitter
[NASA-CASE-MSC-12105-1] c14 N72-21409

Optical mirror support system
[NASA-CASE-XER-07896-2] c23 N72-22673

Strain gauge ambiguity sensor for segmented mirror active optical system
[NASA-CASE-NFS-20506-1] c35 N75-12273

Method for manufacturing mirrors in zero gravity environment
[NASA-CASE-MSC-12611-1] c12 N76-15189

Method of and means for testing a glancing-incidence mirror system of an X-ray telescope
[NASA-CASE-NFS-22409-2] c74 N78-15880

Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391

Anastigmatic three-mirror telescope
[NASA-CASE-NFS-23675-1] c89 N79-10969

MISSILE CONTROL

Turnstile slot antenna
[NASA-CASE-GSC-11428-1] c32 N74-20864

MISSILE LAUNCHERS

Launch pad missile release system with bending moment change rate reduction in thrust distribution structure at liftoff
[NASA-CASE-INP-03198] c30 N70-40353

Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations

[NASA-CASE-IKS-03509] c14 N71-23175

Controlled release device for use in launching rockets or missiles
[NASA-CASE-IKS-03338] c15 N71-24043

MISSILES

Fire protection covering for small diameter missiles
[NASA-CASE-ABC-11104-1] c15 N78-13110

Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168

MITOSIS

Process for control of cell division
[NASA-CASE-LAR-10773-3] c51 N77-25769

MIXERS

Variable mixer propulsion cycle
[NASA-CASE-LEW-12917-1] c07 N78-18067

MIXING CIRCUITS

Varactor microwave frequency mixing circuit
[NASA-CASE-XGS-02171] c09 N69-24324

Microwave waveguide mixer
[NASA-CASE-BRC-10179] c07 N72-20141

MIXTURES

Low gravity phase separator
[NASA-CASE-MSC-14773-1] c35 N78-12390

MOBILITY

Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility
[NASA-CASE-HQH-10069] c33 N75-27251

MODE TRANSFORMERS

Silicon controlled rectifier inverter with compensation of transients to avoid false gating
[NASA-CASE-XLA-08507] c09 N69-39984

Dual waveguide mode source for controlling amplitudes of two modes
[NASA-CASE-INP-03134] c07 N71-10676

Direct current transformer
[NASA-CASE-NFS-23659-1] c33 N79-17133

MODEMS

Charge storage diode modulators and demodulators
[NASA-CASE-NPO-10189-1] c33 N77-21314

MODULATION

Demodulator for carrier transducers
[NASA-CASE-MUC-10107-1] c33 N74-17930

MODULATORS

Fabry-Perot interferometer retrodirective reflector modulator for optical communication
[NASA-CASE-XGS-04480] c16 N69-27491

Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605

Calibrator for measuring and modulating or demodulating laser outputs
[NASA-CASE-XLA-03410] c16 N71-25914

Full wave modulator-demodulator amplifier apparatus --- for generating rectified output signal
[NASA-CASE-FRC-10072-1] c33 N74-14939

Charge storage diode modulators and demodulators
[NASA-CASE-NPO-10189-1] c33 N77-21314

MODULES

Biorthogonal encoder with modular design
[NASA-CASE-NPO-10629] c08 N72-18184

Redundant operation of counter modules
[NASA-CASE-NPO-14162-1] c35 N78-22347

Method of fabricating a photovoltaic of a substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

Solar cell module assembly jig
[NASA-CASE-XGS-00829-1] c44 N79-19447

MOISTURE

Gas purged dry box glove reducing permeation of air or moisture into dry box or isolator by diffusion through glove
[NASA-CASE-XLE-02531] c05 N71-23080

MOISTURE METERS

Method of evaluating moisture barrier properties of materials used in electronics encapsulation
[NASA-CASE-NPO-10051] c18 N71-24934

MOLDING MATERIALS

Vacuum method for molding thermosetting compounds used as ablative materials
[NASA-CASE-XLA-01091] c15 N71-10672

Method of making molded electric connector for use with flat conductor cables
[NASA-CASE-INP-03498] c15 N71-15986

Hydraulic apparatus for casting and molding of liquid polymers
[NASA-CASE-INP-07659] c06 N71-22975

SUBJECT INDEX

MONOPROPELLANTS

- Cold metal hydroforming techniques using epoxy molds for counteracting creep or stretch
[NASA-CASE-XLE-05641-1] c15 N71-26346
- Holding process for imidazopyrrolone polymers
[NASA-CASE-LAR-10547-1] c31 N74-13177
- Evacuated displacement compression molding
[NASA-CASE-LAR-10782-1] c31 N74-14133
- Molded composite pyrogen igniter for rocket motors --- solid propellant ignition
[NASA-CASE-LAR-12018-1] c20 N78-24275
- Process for manufacturing cannula
[NASA-CASE-NPO-14073-1] c52 N78-25762
- Method of making a rocket nozzle
[NASA-CASE-XNP-06884-1] c20 N79-21123
- MOLDS**
- Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836
- Using molds for fabricating individual fluid circuit components
[NASA-CASE-XLA-07829] c15 N72-16329
- Evacuated displacement compression molding
[NASA-CASE-LAR-10782-1] c31 N74-14133
- Holding apparatus --- for thermosetting plastic compositions
[NASA-CASE-LAR-10489-2] c31 N74-32920
- Evacuated, displacement compression mold --- of tubular bodies from thermosetting plastics
[NASA-CASE-LAR-10782-2] c31 N75-13111
- Method of making an apertured casting --- using duplicate mold
[NASA-CASE-LEW-11169-1] c37 N76-23570
- MOLECULAR BEAMS**
- Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777
- Sputtering holes with ion beamlets
[NASA-CASE-LEW-11646-1] c20 N74-31269
- MOLECULAR GASES**
- Compact hydrogenator
[NASA-CASE-NPO-11682-1] c35 N74-15127
- MOLECULAR PUMPS**
- Omnidirectional anisotropic molecular trap, used with vacuum pump to simulate space environments for testing spacecraft components
[NASA-CASE-XGS-00783] c30 N71-17788
- Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294
- MOLECULAR RELAXATION**
- Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683
- MOLECULAR ROTATION**
- Diatomic infrared gasdynamic laser --- for producing different wavelengths
[NASA-CASE-ABC-10370-1] c36 N75-31426
- MOLECULAR SPECTROSCOPY**
- Microwave double resonance spectroscopy absorption cell for gas analysis
[NASA-CASE-LAR-10305] c14 N71-26137
- MOLECULES**
- Stabilization of He₂(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
[NASA-CASE-NPO-13993-1] c72 N79-13826
- MOLTEN SALT ELECTROLYTES**
- Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism
[NASA-CASE-XLE-01645] c03 N71-20904
- Zinc-halide battery with molten electrolyte
[NASA-CASE-NPO-11961-1] c44 N76-18643
- MOLYBDENUM**
- Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12174-2] c35 N79-14346
- MOLYBDENUM CARBIDES**
- Flame or plasma spraying for molybdenum coating of carbon or graphite surfaces to prevent oxidative corrosion
[NASA-CASE-XLA-00302] c15 N71-16077
- MOLYBDENUM COMPOUNDS**
- Method for producing refractory molybdenum disilicides
[NASA-CASE-XMS-00370] c17 N71-20941
- MOMENTS OF INERTIA**
- Test fixture for measuring moment of inertia of irregularly shaped body with multiple axes
[NASA-CASE-XGS-01023] c14 N71-22992
- MOMENTUM**
- Utilization of momentum devices for forming attitude control and damping system for spacecraft
[NASA-CASE-XLA-02551] c21 N71-21708
- Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990
- MONATOMIC GASES**
- Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength
[NASA-CASE-LEW-12081-2] c72 N78-19907
- MONITORS**
- Fluid leakage detection system with automatic monitoring capability
[NASA-CASE-LAR-10323-1] c12 N71-17573
- Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026
- Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
- Peak polarity selector for monitoring waveforms
[NASA-CASE-FRC-10010] c10 N71-24862
- Circuit for monitoring power supply by ripple current indication
[NASA-CASE-KSC-10162] c09 N72-11225
- Development of droplet monitoring probe for use in analysis of droplet propagation in mixed-phase fluid stream
[NASA-CASE-NPO-10985] c14 N73-20478
- Monitoring and recording lightning strokes in predetermined area
[NASA-CASE-KSC-10728-1] c14 N73-32319
- Method and apparatus for optically monitoring the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304
- Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N79-11315
- Apparatus including a plurality of spaced transformers for locating short circuits in cables
[NASA-CASE-KSC-10899-1] c33 N79-18193
- MONOCHROMATIC RADIATION**
- Apparatus for producing monochromatic light from continuous plasma source
[NASA-CASE-XNP-04167-2] c25 N72-24753
- Laser extensometer
[NASA-CASE-NFS-19259-1] c36 N78-14380
- MONOCHROMATORS**
- Analytical photoionization mass spectrometer with argon gas filter between light source and monochromator
[NASA-CASE-LAR-10180-1] c06 N71-13461
- Color television system for allowing monochrome television camera to produce color pictures
[NASA-CASE-MSC-12146-1] c07 N72-17109
- MONOMERS**
- Pressure transducer --- using monomeric charge transfer complex sensor
[NASA-CASE-NPO-11150] c35 N78-17359
- MONOPOLE ANTENNAS**
- Monopole antenna system for maximum omnidirectional efficiency for use on satellites
[NASA-CASE-XLA-00414] c07 N70-38200
- Flexible monopole antenna with broad bandwidth and low voltage standing wave ratio
[NASA-CASE-MSC-12101] c09 N71-18720
- MONOPROPELLANTS**
- Ignition system for monopropellant combustion devices
[NASA-CASE-XNP-00249] c28 N70-38249
- Catalyst bed ignition system for hydrazine propellants
[NASA-CASE-XNP-00876] c28 N70-41311
- Low thrust monopropellant engine --- low temperature environments

MONOPULSE ANTENNAS

SUBJECT INDEX

[NASA-CASE-GSC-12194-2] c20 N79-15151
MONOPULSE ANTENNAS
 Electronic and mechanical scanning control system for monopulse tracking antenna
 [NASA-CASE-IGS-05582] c07 N69-27460
 Development and characteristics of low-noise multimode monopulse antenna feed system for use with microwave communication equipment
 [NASA-CASE-INP-01735] c07 N71-22750
 Monopulse scanning network for scanning volumetric antenna pattern
 [NASA-CASE-GSC-10299-1] c09 N71-24804
 Switchable beamwidth monopulse method and system
 [NASA-CASE-GSC-11924-1] c33 N76-27472
MONOPULSE RADAR
 Polarization diversity monopulse tracking receiver design without radio frequency switches
 [NASA-CASE-IGS-03501] c09 N71-20864
 Monopulse tracking system with antenna array of three radiators for deriving azimuth and elevation indications
 [NASA-CASE-IGS-01155] c10 N71-21483
MONOSTABLE MULTIVIBRATORS
 Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
 [NASA-CASE-GSC-11139] c09 N71-27016
 Monostable multivibrator for producing output pulse widths with positive feedback NOR gates
 [NASA-CASE-HSC-13492-1] c10 N71-28860
MOSSBAUER EFFECT
 Mossbauer spectrometer radiation detector
 [NASA-CASE-LAB-11155-1] c35 N74-15091
 Method and apparatus for vibration analysis utilizing the Mossbauer effect
 [NASA-CASE-INP-05882] c35 N75-27329
MOTION
 Quick attach mechanism for moving or stationary wires, ropes, or cables
 [NASA-CASE-IXR-05421] c15 N71-22994
MOTION PICTURES
 Real time moving scene holographic camera system
 [NASA-CASE-MFS-21087-1] c35 N74-17153
 Real time, large volume, moving scene holographic camera system
 [NASA-CASE-MFS-22537-1] c35 N75-27328
MOTION SIMULATORS
 Kinesthetic control simulator --- for pilot training
 [NASA-CASE-LAR-10276-1] c09 N75-15662
MOTION STABILITY
 Hydraulic drive mechanism for leveling isolation platforms
 [NASA-CASE-XMS-03252] c15 N71-10658
MOTORS
 Nonmagnetic thermal motor for magnetometer movement
 [NASA-CASE-XAR-03786] c09 N69-21313
 System for maintaining motor at predetermined speed using digital pulses
 [NASA-CASE-INP-06892] c09 N71-24805
 Mechanical thermal motor
 [NASA-CASE-MFS-23062-1] c37 N77-12402
 Redundant motor drive system
 [NASA-CASE-MFS-23777-1] c37 N78-28460
MOUNTING
 Mounting fixture for supporting thermobulb in pipeline
 [NASA-CASE-NPO-10158] c33 N71-16356
 Mounting apparatus for temperature control system
 [NASA-CASE-NPO-10138] c33 N71-16357
 Inertial component clamping assembly design for spacecraft guidance and control system mounting
 [NASA-CASE-XMS-02184] c15 N71-20813
 Techniques for packaging and mounting printed circuit boards
 [NASA-CASE-MFS-21919-1] c10 N73-25243
 Lubricated journal bearing
 [NASA-CASE-LEW-11076-3] c37 N75-30562
 Translatory shock absorber for attitude sensors
 [NASA-CASE-MFS-22905-1] c19 N76-22284
 Deformable bearing seat
 [NASA-CASE-LEW-12527-1] c37 N77-32500
 Impact absorbing blade mounts for variable pitch blades
 [NASA-CASE-LEW-12313-1] c37 N78-10468
 Attaching of strain gages to substrates
 [NASA-CASE-FEC-10093-1] c35 N78-18393

MOVING TARGET INDICATORS

Automatic vehicle location system
 [NASA-CASE-NPO-11850-1] c32 N74-12912
 Interferometric locating system
 [NASA-CASE-NPO-14173-1] c04 N79-10039
MULTICHANNEL COMMUNICATION
 Tape guidance system for multichannel digital recording system
 [NASA-CASE-INP-09453] c08 N71-19420
 Plural channel data transmission system with quadrature modulation and complementary demodulation
 [NASA-CASE-IAC-06302] c08 N71-19763
 Improved phase lock loop for receiver in multichannel telemetry system with suppressed carrier
 [NASA-CASE-NPO-11593-1] c07 N73-28012
 Miniature multichannel biotelemetry system
 [NASA-CASE-NPO-13065-1] c52 N74-26625
 Medical subject monitoring systems --- multichannel monitoring systems
 [NASA-CASE-HSC-14180-1] c52 N76-14757
 Multi-channel rotating optical interface for data transmission
 [NASA-CASE-NPO-14066-1] c44 N79-20496
MULTIENGINE VEHICLES
 Vortex attenuation method --- for multi-engine aircraft
 [NASA-CASE-LAR-12034-1] c02 N77-22045
MULTILAYER INSULATION
 Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
 [NASA-CASE-XMS-01625] c15 N71-23022
 Multilayer insulation panels for cryogenic liquid containers
 [NASA-CASE-MFS-14023] c33 N71-25351
 Electrical failure detector in solid rocket propellant motor insulation against thermal degradation by fuel grain
 [NASA-CASE-INP-03968] c14 N71-27186
 Method of making an insulation foil
 [NASA-CASE-LEW-11484-1] c24 N75-33181
 Insulation for piping
 [NASA-CASE-HSC-19523-1] c31 N76-16245
MULTIPATH TRANSMISSION
 Anti-multipath digital signal detector
 [NASA-CASE-LAR-11827-1] c32 N77-10392
MULTIPLE BEAM INTERVAL SCANNERS
 Tracking antenna system with array for synchronous satellite or ground based radar
 [NASA-CASE-GSC-10553-1] c07 N71-19854
 Variable beamwidth antenna --- with multiple beam, variable feed system
 [NASA-CASE-GSC-11862-1] c32 N76-18295
MULTIPLE DOCKING ADAPTERS
 Probe and drogue assembly for mechanical linking of two space vehicles
 [NASA-CASE-XMS-03613] c31 N71-16346
MULTIPLE OUTPUT PROGRAMS
 Multi-computer multiple data path hardware exchange system
 [NASA-CASE-NPO-13422-1] c60 N76-14818
MULTIPLEXING
 Doppler frequency shift correction device for multiplex communication with Applications Technology Satellites
 [NASA-CASE-IGS-02749] c07 N69-39978
 Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
 [NASA-CASE-INP-01306] c07 N71-20814
 Satellite network synchronization system with multiple access to multiplex repeater
 [NASA-CASE-GSC-10390-1] c07 N72-11149
 Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
 [NASA-CASE-NPO-10769] c08 N72-11171
 Development and characteristics of data multiplexer circuit using field effect transistors arranged in tree switching configuration
 [NASA-CASE-NPO-11333] c08 N72-22162
 Television multiplexing system, using single crystal controlled clock for signal synchronization
 [NASA-CASE-KSC-10654-1] c07 N73-30115

- Asynchronous, multiplexing, single line transmission and recovery data system --- for satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195
- Correlation type phase detector --- with time correlation integrator for frequency multiplexed signals
[NASA-CASE-GSC-11744-1] c33 N75-26243
- System for producing chroma signals
[NASA-CASE-HSC-14683-1] c74 N77-18893
- Fiber optic multiplex optical transmission system
[NASA-CASE-KSC-11047-1] c74 N78-14889
- High-speed multiplexing of keyboard data inputs
[NASA-CASE-NPO-14554-1] c60 N79-14797
- MULTIPLIERS**
Pulse duration modulation multiplier system
[NASA-CASE-XER-09213] c07 N71-12390
- Design and development of variable pulse width multiplier
[NASA-CASE-XLA-02850] c09 N71-20447
- Capacitance multiplier and filter synthesizing network
[NASA-CASE-NPO-11948-1] c33 N74-32712
- Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter
[NASA-CASE-LEW-12791-1] c33 N78-32341
- MULTISPECTRAL BAND SCANNERS**
Optical process for producing classification maps from multispectral data
[NASA-CASE-HSC-14472-1] c43 N77-10584
- Interactive color display for multispectral imagery using correlation clustering
[NASA-CASE-HSC-16253-1] c32 N79-20297
- MULTISPECTRAL PHOTOGRAPHY**
Computerized optical system for producing multiple images of a scene simultaneously
[NASA-CASE-HSC-12400-1] c23 N73-13661
- Optical process for producing classification maps from multispectral data
[NASA-CASE-HSC-14472-1] c43 N77-10584
- Multispectral imaging and analysis system --- using charge coupled devices and linear arrays
[NASA-CASE-NPO-13691-1] c43 N79-17288
- Interactive color display for multispectral imagery using correlation clustering
[NASA-CASE-HSC-16253-1] c32 N79-20297
- MULTISTAGE ROCKET VEHICLES**
Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-IMP-00389] c31 N70-34176
- Steerable solid propellant rocket motor adapted to effect payload orientation as multistage rocket stage or reduce velocity as retrorocket
[NASA-CASE-IMP-00234] c28 N70-38645
- Multi-mission space vehicle module stage design
[NASA-CASE-IMP-01543] c31 N71-17730
- Separation mechanism for use between stages of multistage rocket vehicles
[NASA-CASE-XLA-00188] c15 N71-22874
- Development of remotely controlled shaped charge for lateral displacement of rocket stages after separation
[NASA-CASE-XLA-04804] c31 N71-23008
- Frangible connecting link suitable for rocket stage separation
[NASA-CASE-HSC-11849-1] c15 N72-22488
- MULTIVIBRATORS**
Extra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit
[NASA-CASE-IGS-00381] c09 N70-34819
- Variable frequency magnetic coupled multivibrator with temperature compensated frequency control circuit
[NASA-CASE-IGS-00458] c09 N70-38604
- Variable frequency magnetic coupled multivibrator with output signal of constant amplitude and waveform
[NASA-CASE-IGS-00131] c09 N70-38995
- Improved semiconductor multivibrator circuit which approaches 100 percent efficiency
[NASA-CASE-XAC-00942] c10 N71-16042
- Transistorized dc-coupled multivibrator with noninverted output signal
[NASA-CASE-IMP-09450] c10 N71-18723
- One shot multivibrator circuit for producing long duration output pulses
[NASA-CASE-ARC-10137-1] c09 N71-28468
- MUSCLES**
Subminiature insertable force transducer --- including a strain gage to measure forces in muscles
[NASA-CASE-NPO-13423-1] c33 N75-31329
- MUSCULAR FUNCTION**
Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338
- MUSCULOSKELETAL SYSTEM**
Method and apparatus for applying compressional forces to skeletal structure of subject to simulate force during ambulatory conditions
[NASA-CASE-ARC-10100-1] c05 N71-24738
- MYOCARDIUM**
Myocardium wall thickness transducer and measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895
- N**
- N-TYPE SEMICONDUCTORS**
Complementary DMOS-V MOS integrated circuit structure
[NASA-CASE-GSC-12190-1] c33 N79-12321
- NACELLES**
Deflector for preventing objects from entering nacelle inlets of jet aircraft
[NASA-CASE-XLE-00388] c28 N70-34788
- Afterburner-equipped jet engine nacelle with slotted configuration afterbody
[NASA-CASE-XLA-10450] c28 N71-21493
- Integrated gas turbine engine nacelle
[NASA-CASE-LEW-12389-2] c07 N78-18066
- Integrated gas turbine engine nacelle
[NASA-CASE-LEW-12389-3] c07 N79-14096
- NAVIGATION AIDS**
Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114
- Ruler for making navigational computations
[NASA-CASE-IMP-01458] c04 N78-17031
- NAVIGATION INSTRUMENTS**
Sun angle calculator
[NASA-CASE-HSC-12617-1] c35 N76-29552
- NAVIGATION SATELLITES**
Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948
- NEAR INFRARED RADIATION**
Collimator for analyzing spatial location of near and distant sources of radiation
[NASA-CASE-MPS-20546-2] c14 N73-30389
- NEGATIVE FEEDBACK**
Complementary regenerative transistorized switch circuit employing positive and negative feedback
[NASA-CASE-IGS-02751] c09 N71-23015
- Solid-state current transformer
[NASA-CASE-MPS-22560-1] c33 N77-14335
- NEODYMIUM LASERS**
Length controlled stabilized mode-lock Nd:YAG laser
[NASA-CASE-GSC-11571-1] c36 N77-25499
- NETWORK SYNTHESIS**
Left and right hand circular electromagnetic polarization excitation by phase shifter and hybrid networks
[NASA-CASE-GSC-10021-1] c09 N71-24595
- High speed phase detector design indicating phase relationship between two square wave input signals
[NASA-CASE-IMP-01306-2] c09 N71-24596
- NEUROGLIA**
Percutaneous connector device
[NASA-CASE-KSC-10849-1] c52 N77-14738
- NEUTRALIZERS**
Method and apparatus for neutralizing potentials induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429
- NEUTRON EMISSION**
Deuterium pass through target --- neutron emitting target
[NASA-CASE-LEW-11866-1] c72 N76-15860
- NICKEL**
Process for producing dispersion strengthened nickel with aluminum comprising metallic matrices embedded with oxides or other hyperfine compounds
[NASA-CASE-XLE-06969] c17 N71-24142
- Selective nickel deposition on irradiation sensitive compounds

NICKEL ALLOYS

SUBJECT INDEX

- [NASA-CASE-LEW-10965-1] c15 N72-25452
 Brazing alloy composition
 [NASA-CASE-XNP-06053] c26 N75-27126
 Method of making reinforced composite structure
 [NASA-CASE-LEW-12619-1] c24 N77-19171
 Directionally solidified eutectic gamma-gamma
 nickel-base superalloys
 [NASA-CASE-LEW-12905-1] c26 N78-18183
- NICKEL ALLOYS**
 Preparation of nickel alloys for jet turbine
 blades operating at high temperatures
 [NASA-CASE-XLE-00151] c17 N70-33283
 Nickel alloy series for aerospace structures
 subjected to high temperatures
 [NASA-CASE-XLE-00283] c17 N70-36616
 Nickel base alloy with resistance to oxidation
 at high temperatures and superior
 stress-rupture properties
 [NASA-CASE-XLE-02082] c17 N71-16026
 High strength nickel based alloys
 [NASA-CASE-LEW-10874-1] c17 N72-22535
 Diffusion welding --- heat treatment of nickel
 alloys following single step vacuum welding
 process
 [NASA-CASE-LEW-11388-2] c37 N74-21055
 Method of heat treating age-hardenable alloys
 [NASA-CASE-XNP-01311] c26 N75-29236
 Zirconium modified nickel-copper alloy
 [NASA-CASE-LEW-12245-1] c26 N77-20201
 Directionally solidified eutectic gamma plus
 beta nickel-base superalloys
 [NASA-CASE-LEW-12906-1] c26 N77-32279
 Nickel base alloy --- for gas turbine engine
 stator vanes
 [NASA-CASE-LEW-12270-1] c26 N77-32280
- NICKEL CADMIUM BATTERIES**
 Heat flow calorimeter --- measures output of
 Ni-Cd batteries
 [NASA-CASE-XNP-11434-1] c34 N74-27859
 Method and apparatus for conditioning of
 nickel-cadmium batteries
 [NASA-CASE-NFS-23270-1] c44 N78-25531
- NICKEL COATINGS**
 Intermetallic chromium containing nickel
 aluminate for high temperature corrosion
 protection of stainless steels
 [NASA-CASE-LEW-11267-1] c17 N73-32414
 Selective coating for solar panels --- using
 black chrome and black nickel
 [NASA-CASE-LEW-12159-1] c44 N78-19599
- NICKEL COMPOUNDS**
 Including didymium hydrate in nickel hydroxide
 of positive electrode of storage batteries to
 increase ampere hour capacity
 [NASA-CASE-IGS-03505] c03 N71-10608
 Brazing alloy
 [NASA-CASE-XNP-03878] c26 N75-27127
- NICKEL PLATE**
 Nickel plating onto etched aluminum castings
 [NASA-CASE-XNP-04148] c17 N71-24830
- NIOSIUM**
 Organometallic compounds of niobium and tantalum
 useful for film deposition
 [NASA-CASE-NXP-04023] c06 N71-28808
- NITRAMINE PROPELLANTS**
 Nitramine propellants --- gun propellant burning
 rate
 [NASA-CASE-NPO-14103-1] c28 N78-31255
- NITRIC OXIDE**
 Reduction of nitric oxide emissions from a
 combustor
 [NASA-CASE-ARC-10814-2] c25 N77-31260
- NITRIDES**
 Growth of gallium nitride crystals
 [NASA-CASE-LAR-11302-1] c25 N75-13054
- NITRILES**
 Intumescent paint containing nitrile rubber for
 fire protection
 [NASA-CASE-ARC-10196-1] c18 N73-13562
 Triaerization of aromatic nitriles
 [NASA-CASE-LEW-12053-1] c27 N78-15276
- NITRO COMPOUNDS**
 Intumescent coatings containing
 4,4'-dinitrosulfanilide
 [NASA-CASE-ARC-11042-1] c24 N78-14096
- NITROANILINES**
 Nitroaniline sulfate, intumescent paints
 [NASA-CASE-ARC-10099-1] c18 N71-15469
- Mercaptan terminated polymer containing sulfonic
 acid salts of nitrosubstituted aromatic amines
 for heat and moisture resistant coatings
 [NASA-CASE-ARC-10325] c06 N72-25147
- NITROGEN**
 III-V photocathode with nitrogen doping for
 increased quantum efficiency
 [NASA-CASE-NPO-12134-1] c33 N76-31409
- NITROGEN OXIDES**
 Combustion engine --- for air pollution control
 [NASA-CASE-NPO-13671-1] c37 N77-31497
 Combustor --- low nitrogen oxide formation
 [NASA-CASE-NPO-13958-1] c25 N79-11151
- NITROGEN TETROXIDE**
 Gas chromatographic method for determining water
 in nitrogen tetroxide rocket propellant
 [NASA-CASE-NPO-10234] c06 N72-17094
- NITROGUANIDINE**
 Solid propellant stabilizer containing
 nitroguanidine
 [NASA-CASE-NPO-12000] c27 N72-25699
- NOISE GENERATORS**
 Pseudo-noise test set for communication system
 evaluation --- test signals
 [NASA-CASE-NFS-22671-1] c35 N75-21582
 Method of and means for testing a tape
 record/playback system
 [NASA-CASE-NFS-22671-2] c35 N77-17426
- NOISE MEASUREMENT**
 Detection of the transitional layer between
 laminar and turbulent flow areas on a wing
 surface --- using an accelerometer to measure
 noise levels during wind tunnel tests
 [NASA-CASE-LAR-12261-1] c02 N79-16805
- NOISE METERS**
 Instrumentation for measurement of aircraft
 noise and sonic boom
 [NASA-CASE-LAR-11173-1] c35 N75-19614
 Differential sound level meter
 [NASA-CASE-LAR-12106-1] c71 N78-14867
- NOISE REDUCTION**
 Upper surface, external flow, jet-augmented flap
 configuration for high wing jet aircraft for
 noise reduction
 [NASA-CASE-XLA-00087] c02 N70-33332
 Cassegrain antenna subreflector flange for
 suppressing ground noise and increasing
 antenna transmitting efficiency
 [NASA-CASE-XNP-00683] c09 N70-35425
 Device for adding water to high velocity exhaust
 jets to reduce velocity, noise, and temperature
 [NASA-CASE-XNP-01813] c28 N70-41582
 Variable time constant, wide frequency range
 smoothing network for noise removal from pulse
 chains
 [NASA-CASE-IGS-01983] c10 N70-41964
 Digital telemetry system apparatus to reduce
 tape recorder wow and flutter noise during
 playback
 [NASA-CASE-IGS-01812] c07 N71-23001
 Audio signal processing system for noise surge
 elimination at low amplitude audio input
 [NASA-CASE-NSC-12223-1] c07 N71-26181
 Variable frequency nuclear magnetic resonance
 spectrometer providing drive signals over wide
 frequency range and minimizing noise effects
 [NASA-CASE-XNP-09830] c14 N71-26266
 Noise elimination in coherent imaging system by
 axial rotation of optical lense for spectral
 distribution of degrading affects
 [NASA-CASE-GSC-11133-1] c23 N72-11568
 Audio equipment for removing impulse noise from
 audio signals
 [NASA-CASE-NPO-11631] c10 N73-12244
 Jet aircraft exhaust nozzle for noise reduction
 [NASA-CASE-LAR-10951-1] c28 N73-19819
 Development of aircraft configuration for
 reduction of jet aircraft noise by exhausting
 engine gases over upper surface of wing
 [NASA-CASE-LAR-11087-1] c02 N73-26008
 Gas turbine exhaust nozzle --- for noise reduction
 [NASA-CASE-LEW-11569-1] c07 N74-15453
 Totally confined explosive welding --- apparatus
 to reduce noise level and protect personnel
 during explosive bonding
 [NASA-CASE-LAR-10941-1] c37 N74-21057
 Jet exhaust noise suppressor
 [NASA-CASE-LEW-11286-1] c07 N74-27490

- Supersonic fan blading --- noise reduction in turbofan engines
[NASA-CASE-LEW-11402-1] c07 N74-28226
- Variably positioned guide vanes for aerodynamic choking
[NASA-CASE-LAR-10642-1] c07 N74-31270
- Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418
- Abating exhaust noises in jet engines
[NASA-CASE-ARC-10712-1] c07 N74-33218
- Television noise reduction device
[NASA-CASE-HSC-12607-1] c32 N75-21485
- Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117
- Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131
- Apparatus for reducing aerodynamic noise in a wind tunnel
[NASA-CASE-NFS-23099-1] c09 N76-23273
- Optical noise suppression device and method --- laser light exposing film
[NASA-CASE-HSC-12640-1] c74 N76-31998
- Apparatus and method for jet noise suppression
[NASA-CASE-LAR-11903-1] c07 N77-15036
- Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130
- Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055
- Magneto-optic detection system with noise cancellation
[NASA-CASE-NPO-11954-1] c35 N78-29421
- Totally confined explosive welding
[NASA-CASE-LAR-10941-2] c37 N79-13364
- Sound-suppressing structure with thermal relief
[NASA-CASE-LEW-12658-1] c71 N79-14871
- NOISE TEMPERATURE**
Input radio frequency circuit for switching type absolute temperature measuring radiometer for noise sources
[NASA-CASE-BRC-11020] c14 N71-26774
- NOISE THRESHOLD**
Threshold extension device for improving operating performance of frequency modulation demodulators by eliminating click-type noise impulses
[NASA-CASE-HSC-12165-1] c07 N71-33696
- NONADIABATIC CONDITIONS**
Direct heating surface combustor
[NASA-CASE-LEW-11877-1] c34 N78-27357
- NONDESTRUCTIVE TESTS**
Nondestructive radiographic tests of resistance welds
[NASA-CASE-INP-02588] c15 N71-18613
- Space environment simulator for testing spacecraft components under aerospace conditions
[NASA-CASE-NPO-10141] c11 N71-24964
- Apparatus for semiautomatic inspection of microfilmed documents for density, resolution, size, and position
[NASA-CASE-NFS-20240] c14 N71-26788
- Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
[NASA-CASE-INP-02221] c18 N71-27170
- Method and photodetector device for locating abnormal voids in low density materials
[NASA-CASE-NFS-20044] c14 N71-28993
- Nondestructive stress testing of solder joints on printed circuit boards by holographic techniques
[NASA-CASE-NFS-20687] c16 N72-11415
- Holographic system for nondestructive testing
[NASA-CASE-NFS-21704-1] c35 N75-25124
- Method and apparatus for nondestructive testing of pressure vessels
[NASA-CASE-NPO-12142-1] c38 N76-28563
- Non-destructive method for applying and removing instrumentation on helicopter rotor blades
[NASA-CASE-LAR-11201-1] c35 N78-24515
- Hybrid holographic non-destructive test system
[NASA-CASE-NFS-23114-1] c38 N78-32447
- NON-EQUILIBRIUM CONDITIONS**
Condition sensor system and method
[NASA-CASE-HSC-14805-1] c54 N78-32720
- NON-EQUILIBRIUM PLASMAS**
Plasma probes having guard ring and primary sensor at same potential to prevent stray wall current collection in ionized gases
[NASA-CASE-XLR-00690] c25 N69-39884
- NON-EQUILIBRIUM RADIATION**
Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQW-10841-1] c73 N78-19920
- NONFLAMMABLE MATERIALS**
Intumescent paint containing nitrile rubber for fire protection
[NASA-CASE-ARC-10196-1] c18 N73-13562
- Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-HSC-14331-1] c27 N76-24405
- Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-HSC-16074-1] c27 N77-14262
- NONLINEAR FEEDBACK**
Coherent receiver employing nonlinear coherence detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523
- Nonlinear nonsingular feedback shift registers
[NASA-CASE-NPO-13451-1] c33 N76-14373
- NONLINEAR SYSTEMS**
Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
[NASA-CASE-INP-00701] c09 N70-40272
- Describing continuous analog to digital converter with parallel digital output and nonlinear feedback
[NASA-CASE-XAC-04031] c08 N71-18594
- Split range transducer
[NASA-CASE-XLA-11189] c10 N72-20222
- NOSE CONES**
Automatically deploying nozzle exit cone extension
[NASA-CASE-XLE-01640] c31 N71-15637
- Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield
[NASA-CASE-INS-04312] c07 N71-22984
- NOSE WHEELS**
Nose gear steering system for vehicles with main skids to provide directional stability after loss of aerodynamic control
[NASA-CASE-XLA-01804] c02 N70-34160
- NOTCH TESTS**
Vee-notching device --- with adjustable carriage
[NASA-CASE-NFS-20730-1] c39 N74-13131
- Notch filter
[NASA-CASE-NFS-23303-1] c32 N77-18307
- NOTCHES**
Notch filter
[NASA-CASE-NFS-23303-1] c32 N77-18307
- NOZZLE DESIGN**
High thrust annular liquid propellant rocket engine and exhaust nozzle design
[NASA-CASE-XLE-00078] c28 N70-33284
- Penshaped, supersonic exhaust nozzle design
[NASA-CASE-XLE-00057] c28 N70-38711
- Telescoping-spike supersonic nozzle for turbojet or ramjet engines
[NASA-CASE-XLE-00005] c28 N70-39899
- Automatically deploying nozzle exit cone extension
[NASA-CASE-XLE-01640] c31 N71-15637
- Propellant injection assembly having individually removable and replaceable nozzles for liquid fueled rocket engines
[NASA-CASE-INP-00968] c28 N71-15660
- Development of collapsible nozzle extension for rocket engines
[NASA-CASE-NFS-11497] c28 N71-16224
- Design and development of gas turbine combustion unit with nozzle guide vanes for introducing diluent air into combustion gases
[NASA-CASE-XLE-103477-1] c28 N71-20330
- Prestressed rocket nozzle with ceramic inner rings and refractory metal outer rings
[NASA-CASE-INP-02888] c18 N71-21068
- Scanning nozzle plating system --- for etching or plating metals on substrates without masking
[NASA-CASE-NPO-11758-1] c31 N74-23065
- Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466
- Variable thrust nozzle for quiet turbofan engine and method of operating same

NOZZLE FLOW

SUBJECT INDEX

[NASA-CASE-LEW-12317-1] c07 N78-17055
Variable area exhaust nozzle
[NASA-CASE-LEW-12378-1] c07 N79-14097

NOZZLE FLOW
System for aerodynamic control of rocket vehicles by secondary injection of fluid into nozzle exhaust stream
[NASA-CASE-XLA-01163] c21 N71-15582
Constructing fluid spike nozzle to eliminate heat transfer and high temperature problems inherent in physical spikes
[NASA-CASE-IGS-01143] c31 N71-15647
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339
Tertiary flow injection system for thrust vectoring of propulsive nozzle flow
[NASA-CASE-NFS-20831] c28 N71-29153
Multi-purpose wind tunnel reaction control model block
[NASA-CASE-HSC-19706-1] c09 N78-31129

NOZZLE GEOMETRY
Method of making a rocket nozzle
[NASA-CASE-XHP-06884-1] c20 N79-21123

NOZZLE INSERTS
Flexible rocket motor nozzle closure device to aid ignition and protect rocket chamber from foreign objects
[NASA-CASE-XLA-02651] c28 N70-41967

NUCLEAR ELECTRIC POWER GENERATION
Nuclear electric generator for accelerating charged propellant particles in electrostatic propulsion system
[NASA-CASE-XLE-00818] c22 N70-34248

NUCLEAR EXPLOSION EFFECT
Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-XHP-01310] c33 N71-28852

NUCLEAR FUEL ELEMENTS
Tungsten-coated tungsten-uranium dioxide nuclear fuel plates
[NASA-CASE-XLE-00209] c22 N73-32528

NUCLEAR MAGNETIC RESONANCE
Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-XHP-09830] c14 N71-26266

NUCLEAR POWER PLANTS
Development and characteristics of natural circulation radiator for use with nuclear power plants installed in lunar space stations
[NASA-CASE-XHQ-03673] c33 N71-29046

NUCLEAR PUMPED LASERS
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N79-18307

NUCLEAR REACTOR CONTROL
Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597
Control for nuclear thermionic power source
[NASA-CASE-NPO-13114-2] c73 N78-28913

NUCLEAR REACTORS
Nuclear thermionic converter --- tungsten-thorium oxide rods
[NASA-CASE-NPO-13121-1] c73 N77-18891

NUCLEAR ROCKET ENGINES
Nuclear gaseous reactor for heating working fluid to high temperatures
[NASA-CASE-XLE-00321] c22 N70-34572

NUCLEATE BOILING
Method for improving heat transfer characteristics in nucleate boiling process
[NASA-CASE-XHS-04268] c33 N71-16277

NULL ZONES
Manual control mechanism for adjusting control rod to null position
[NASA-CASE-XLA-01808] c15 N71-20740

NUMBER THEORY
Binary concatenated coding system
[NASA-CASE-HSC-14082-1] c60 N76-23850

NUMERICAL CONTROL
Digital sensor for counting fringes produced by interferometers with improved sensitivity and one photomultiplier tube to eliminate alignment problem

[NASA-CASE-LAR-10204] c14 N71-27215
Digital numerically controlled oscillator
[NASA-CASE-HSC-16747-1] c33 N79-17138
Controller for computer control of brushless DC motors
[NASA-CASE-NPO-13970-1] c33 N79-20315

NUMERICAL INTEGRATION
Apparatus for computing square roots
[NASA-CASE-IGS-04768] c08 N71-19437

NOTATION
Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
[NASA-CASE-XHP-00442] c31 N71-10747
Nutation damper for use on spinning body
[NASA-CASE-GSC-11205-1] c15 N73-25513

NOTATION DAMPERS
Active nutation controller
[NASA-CASE-GSC-12273-1] c18 N78-23141

NUTS (FASTENERS)
Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
[NASA-CASE-IGS-01971] c15 N71-15922
Split nut and bolt separation device
[NASA-CASE-XHP-06914] c15 N71-21489
Device for securing together structural members with axially stretched bolt and nut
[NASA-CASE-GSC-11149-1] c15 N73-30457
A floating nut retention system
[NASA-CASE-HSC-16938-1] c37 N78-32431
High-torque open-end wrench
[NASA-CASE-NPO-13541-1] c37 N79-14383

O RING SEALS
High pressure four-way valve with O ring adapted to pass across inlet port
[NASA-CASE-XHP-00214] c15 N70-36908
Self-stabilizing radial face seal
[NASA-CASE-LEW-12991-1] c37 N79-12445

OBLIQUE WINGS
Oblique-wing supersonic aircraft
[NASA-CASE-ARC-10470-3] c05 N76-29217

OCEAN SURFACE
High visibility air sea rescue panel
[NASA-CASE-HSC-12564-1] c54 N76-15792
Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks
[NASA-CASE-NPO-13862-1] c35 N79-10391
Oceanic wave measurement system
[NASA-CASE-NFS-23862-1] c48 N79-10689

OCEAN THERMAL ENERGY CONVERSION
Ocean thermal plant
[NASA-CASE-KSC-11034-1] c44 N78-32542

OFFSHORE PLATFORMS
Ocean thermal plant
[NASA-CASE-KSC-11034-1] c44 N78-32542

OHMMETERS
Development of electrical system for indicating optimum contact between electrode and metal surface to permit improved soldering operation
[NASA-CASE-KSC-10242] c15 N72-23497

OIL RECOVERY
Oil and fat absorbing polymers
[NASA-CASE-NPO-11609-2] c27 N77-31308
In-situ laser retorting of oil shale
[NASA-CASE-LEW-12217-1] c43 N78-14452

OILS
Color photointerpretation of interference colors reflected from thin film oil-coated components in moving gases for gas flow visualization
[NASA-CASE-XHP-01779] c12 N71-20815
Oil and fat absorbing polymers
[NASA-CASE-NPO-11609-2] c27 N77-31308

OMNIDIRECTIONAL ANTENNAS
Microwave omnidirectional antenna for use on spacecraft
[NASA-CASE-XLA-03114] c09 N71-22888
Vertically stacked collinear array of independently fed omnidirectional antennas for use in collision warning systems on commercial aircraft
[NASA-CASE-LAR-10545-1] c09 N72-21244
Omnidirectional antenna array with circumferential slots for mounting on cylindrical space vehicle
[NASA-CASE-LAR-10163-1] c09 N72-25247

SUBJECT INDEX

OPTICAL EQUIPMENT

ONBOARD EQUIPMENT

Survival couch for aircraft or spacecraft crews
[NASA-CASE-XLA-00118] c05 N70-33285

Cryogenic storage system for gases onboard spacecraft
[NASA-CASE-XMS-04390] c31 N70-41871

Fiber optic transducers for monitoring and analysis of vibration in aerospace vehicles and onboard equipment
[NASA-CASE-XMF-02433] c14 N71-10616

Design and construction of satellite appendage tie-down cord
[NASA-CASE-XGS-02554] c31 N71-21064

Satellite aided aircraft collision avoidance system effective for large number of aircraft
[NASA-CASE-ERC-10090] c21 N71-24948

Closed loop servosystem for variable speed tape recorders onboard spacecraft
[NASA-CASE-NPO-10700] c07 N71-33613

Collapsible couch system for manned space vehicles
[NASA-CASE-GSC-13140] c05 N72-11085

Monostable multivibrator for conserving power in spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221

Delayed simultaneous appendage release mechanism for use on spacecraft equipped with despin mechanisms and releasable components
[NASA-CASE-GSC-10814-1] c03 N73-20039

Electronic strain level counter on in-flight aircraft
[NASA-CASE-LAR-10756-1] c32 N73-26910

Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114

OPHTHALMOLOGY

Ultrasonic device for ophthalmic eye surgery with safe removal of macerated material
[NASA-CASE-LEW-11669-1] c05 N73-27062

Ophthalmic liquifaction pump
[NASA-CASE-LEW-12051-1] c52 N75-33640

OPTICAL COMMUNICATION

Fabry-Perot interferometer retrodirective reflector modulator for optical communication
[NASA-CASE-XGS-04480] c16 N69-27491

Specifications and drawings for semipassive optical communication system
[NASA-CASE-XLA-01090] c07 N71-12389

Optical communication system with gas filled waveguide for laser beam transmission
[NASA-CASE-HQN-10541-4] c16 N71-27183

Development and characteristics of optical communications system based on modulation of light beams
[NASA-CASE-XLA-01090] c16 N71-28963

High resolution radar transmitting system for transmitting optical pulses to targets
[NASA-CASE-NPO-11426] c07 N73-26119

Apparatus for simulating optical transmission links
[NASA-CASE-GSC-11877-1] c74 N76-18913

Fiber distributed feedback laser
[NASA-CASE-NPO-13531-1] c36 N76-24553

Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053

Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942

Wideband heterodyne receiver for laser communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346

Fiber optic multiplex optical transmission system
[NASA-CASE-KSC-11047-1] c74 N78-14889

OPTICAL COUPLING

Automatic quadrature control and measuring system --- using optical coupling circuitry
[NASA-CASE-HFS-21660-1] c35 N74-21017

OPTICAL DATA PROCESSING

Optical data processing system using paraboloidal reflecting surfaces
[NASA-CASE-GSC-11296-1] c23 N73-30666

Recorder/processor apparatus --- for optical data processing
[NASA-CASE-GSC-11553-1] c35 N74-15831

An interleaving device --- for computer logic circuits used in optical data processing
[NASA-CASE-GSC-12111-2] c60 N77-31800

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-1] c32 N79-19195

OPTICAL EMISSION SPECTROSCOPY

Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041

OPTICAL EQUIPMENT

Detection instrument for light emitted from ATP biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355

Optical characteristics measuring apparatus
[NASA-CASE-XNP-08840] c23 N71-16365

Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268

Design and development of optical interferometer with laser light source for application to schlieren systems
[NASA-CASE-XLA-04295] c16 N71-24170

Highly stable optical mirror assembly optimizing image quality of light diffraction patterns
[NASA-CASE-ERC-10001] c23 N71-24868

Optical device containing rotatable prism and reflecting mirror for generating precise angles
[NASA-CASE-XGS-04173] c19 N71-26674

Development and characteristics of Petzval type objective including field shaping lens for focusing light of specified wavelength band on curved photoreceptor
[NASA-CASE-GSC-10700] c23 N71-30027

Development and characteristics of spectroradiometer with wedge filters to eliminate adverse effect of pinholes in filters
[NASA-CASE-HQN-10683] c14 N71-34389

Slotted fine-adjustment support for optical devices
[NASA-CASE-HFS-20249] c15 N72-11386

Development of process for constructing protective covers for solar cells
[NASA-CASE-GSC-11514-1] c03 N72-24037

Development of light sensing system for controlled orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-25414

Borescope with adjustable hinged telescoping optical system
[NASA-CASE-HFS-15162] c14 N72-32452

Development and characteristics of cyclically operable, optical shutter for use as focal plane shutter for transmitting single radiation pulses
[NASA-CASE-NPO-10758] c14 N73-14427

Method for producing reticles for use in outer space
[NASA-CASE-GSC-11188-2] c21 N73-19630

Method and equipment for locating earth infrared horizon from space, independent of season and latitude
[NASA-CASE-LAR-10726-1] c14 N73-20475

Optical imaging system for increasing light absorption efficiency of imaging detector
[NASA-CASE-ARC-10194-1] c23 N73-20741

Development of optical system for detecting defective components in rotating machinery with emphasis on bearing assemblies
[NASA-CASE-KSC-10752-1] c15 N73-27407

Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089

Formation of star tracking reticles
[NASA-CASE-GSC-11188-3] c74 N74-20008

Method and apparatus for optically monitoring the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304

Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040

Strain gauge ambiguity sensor for segmented mirror active optical system
[NASA-CASE-HFS-20506-1] c35 N75-12273

Optical alignment device
[NASA-CASE-ARC-10932-1] c74 N76-22993

Visual examination apparatus
[NASA-CASE-RE-ARC-10329-2] c52 N76-30793

Optical instrument employing reticle having preselected visual response pattern formed thereon
[NASA-CASE-ARC-10976-1] c74 N77-22950

Opto-mechanical subsystem with temperature compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366

OPTICAL FILTERS

SUBJECT INDEX

- Method and apparatus for producing an image from a transparent object
[NASA-CASE-GSC-11989-1] c74 N77-28932
- Method of treating the surface of a glass member
[NASA-CASE-GSC-12110-1] c27 N77-32308
- Method of forming a sharp edge on an optical device --- beam splitters for Solar Maximum Missions spectropolarimeter
[NASA-CASE-GSC-12348-1] c74 N78-29902
- Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses
[NASA-CASE-ARC-11039-1] c74 N78-32854
- Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N79-10693
- Apparatus for endoscopic examination
[NASA-CASE-NPO-14092-1] c52 N79-19678
- OPTICAL FILTERS**
- Lens assembly for solar furnace or solar simulator
[NASA-CASE-XNP-04111] c14 N71-15622
- Noise elimination in coherent imaging system by axial rotation of optical lens for spectral distribution of degrading affects
[NASA-CASE-GSC-11133-1] c23 N72-11568
- Optical noise suppression device and method --- laser light exposing film
[NASA-CASE-MSC-12640-1] c74 N76-31998
- System for producing chroma signals
[NASA-CASE-MSC-14683-1] c74 N77-18893
- Optical conversion method --- for spacecraft television
[NASA-CASE-MSC-12618-1] c74 N78-17865
- Partial polarizer filter
[NASA-CASE-GSC-12225-1] c74 N79-14891
- OPTICAL HETERODYNING**
- Computerized optical system for producing multiple images of a scene simultaneously
[NASA-CASE-MSC-12404-1] c23 N73-13661
- Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942
- Wideband heterodyne receiver for laser communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346
- OPTICAL MEASUREMENT**
- Passive optical wind and turbulence remote detection system
[NASA-CASE-XMF-14032] c20 N71-16340
- Ellipsoidal mirror reflector for measuring reflectance
[NASA-CASE-XGS-05291] c23 N71-16341
- Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040
- Rotary target V-block --- for optical alignment of machinery
[NASA-CASE-LAR-12007-1] c74 N78-15883
- Hybrid holographic non-destructive test system
[NASA-CASE-MFS-23114-1] c38 N78-32447
- Plural output optometric sample cell and analysis system
[NASA-CASE-NPO-10233-1] c74 N78-33913
- Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683
- OPTICAL MEASURING INSTRUMENTS**
- Design and development of optically pumped resonance magnetometer for determining vectoral components in spatial coordinate system
[NASA-CASE-XGS-04879] c14 N71-20428
- Optical gauging system for monitoring machine tool alignment
[NASA-CASE-XAC-09489-1] c15 N71-26673
- Optical system for selecting particular wavelength light beams from multiple wavelength light source
[NASA-CASE-BRC-10248] c14 N72-17323
- Optical sensing of supersonic flows by correlating deflections in laser beams through flow
[NASA-CASE-MFS-20642] c14 N72-21407
- Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759
- Visible and infrared polarization ratio spectroreflectometer
[NASA-CASE-LAR-12285-1] c35 N78-32398
- Stark cell spectrophone with polarization modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392
- Noncontacting method for measuring angular deflection
[NASA-CASE-LAR-12178-1] c74 N79-11866
- Interferometer
[NASA-CASE-NPO-14502-1] c35 N79-19317
- OPTICAL PATHS**
- Optical instruments
[NASA-CASE-MSC-14096-1] c74 N74-15095
- OPTICAL PROPERTIES**
- Remote-reading torque meter for use where high horsepower are transmitted at high rotative speeds
[NASA-CASE-XLB-00503] c14 N70-34818
- Quasi-optical microwave circuit with dielectric body for use with oversize waveguides
[NASA-CASE-BRC-10011] c07 N71-29065
- Development of light sensing system for controlled orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-25414
- Design and development of light sensing device for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11201] c14 N72-27409
- Device and method for determining X ray reflection efficiency, scattering properties, and surface finish of optical surfaces
[NASA-CASE-MFS-20243] c23 N73-13662
- Formation of star tracking reticles
[NASA-CASE-GSC-11188-3] c74 N74-20008
- Optically actuated two position mechanical mover
[NASA-CASE-NPO-13105-1] c37 N74-21060
- Modification of the electrical and optical properties of polymers --- ion irradiation
[NASA-CASE-LEW-13027-1] c27 N79-11216
- OPTICAL PUMPING**
- Xenon flashlamp driver system for optical laser pumping
[NASA-CASE-BRC-10283] c16 N72-25485
- Laser head for simultaneous optical pumping of several dye lasers --- with single flash lamp
[NASA-CASE-LAR-11341-1] c36 N75-19655
- Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
[NASA-CASE-NPO-13993-1] c16 N79-13826
- OPTICAL PYROMETERS**
- Filter arrangement for controlling light intensity in motion picture camera used in optical pyrometry
[NASA-CASE-XLA-00062] c14 N70-33254
- OPTICAL RADAR**
- Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437
- OPTICAL RANGE FINDERS**
- Electro-optical attitude sensing device for landing approach of flight vehicle
[NASA-CASE-XMS-01994-1] c14 N72-17326
- Optical range finder using reflective first surfaces mirror and transmitting beam splitter
[NASA-CASE-MSC-12105-1] c14 N72-21409
- OPTICAL REFLECTION**
- Hybrid holographic system using reference, transmitted, and reflected beams simultaneously
[NASA-CASE-MFS-20074] c16 N71-15565
- Optical device containing rotatable prism and reflecting mirror for generating precise angles
[NASA-CASE-XGS-04173] c19 N71-26674
- Illumination system design for use as sunlight simulator in space environment simulators with multiple light sources reflected to single virtual source
[NASA-CASE-HQN-10781] c23 N71-30292
- Composition of diffuse reflective coating containing sodium chloride in combination with diol solvent and organic wetting and drying agents
[NASA-CASE-GSC-11214-1] c06 N73-13128
- Schlieren system employing antiparallel reflector in the forward direction
[NASA-CASE-ARC-10971-1] c09 N76-26224
- Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942
- Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933

- Method and apparatus for splitting a beam of energy --- optical communication
[NASA-CASE-GSC-12083-1] c73 N78-32848
- OPTICAL RESONANCE**
Design and development of optically pumped resonance magnetometer for determining vectoral components in spatial coordinate system
[NASA-CASE-IGS-04879] c14 N71-20428
Laser system with an antiresonant optical ring
[NASA-CASE-HQN-10844-1] c36 N75-19653
- OPTICAL SCANNERS**
Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
[NASA-CASE-IGS-02401] c14 N69-27485
Optical apparatus for visual detection of roundness and regularity of cone surfaces
[NASA-CASE-IMP-00462] c14 N70-34298
Electro-optical system with scan-in illuminator and scan-out photosensor for scanning variable transmittance objects
[NASA-CASE-NPO-11106] c14 N70-34697
Multi-lobar scan horizon sensor
[NASA-CASE-IGS-00809] c21 N70-35427
Optical scanner with linear housing and rotating camera
[NASA-CASE-NPO-11002] c14 N72-22441
Spacecraft attitude sensing system design with narrow field of view sensor rotating about spacecraft x-y axis
[NASA-CASE-GSC-10890-1] c21 N73-30640
Optical instruments
[NASA-CASE-MSC-14096-1] c74 N74-15095
Dual digital video switcher
[NASA-CASE-KSC-10782-1] c33 N75-30431
Traffic survey system --- using optical scanners
[NASA-CASE-MFS-22631-1] c66 N76-19888
Optical scanner --- laser doppler velocimeters
[NASA-CASE-LAR-11711-1] c74 N78-17866
A method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952
Device for measuring the contour of a surface
[NASA-CASE-LAR-11869-1] c74 N78-27904
- OPTICAL TRACKING**
Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-IGS-01159] c21 N71-10678
Optical tracker with pair of FM reticles having patterns 90 deg out of phase
[NASA-CASE-IGS-05715] c23 N71-16100
Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MFS-14017] c14 N71-26627
- OPTICAL TRANSFER FUNCTION**
Electronic optical transfer function analyzer
[NASA-CASE-MFS-21672-1] c74 N76-19935
- OPTIMIZATION**
Power point tracker for maintaining optimal output voltage of power source
[NASA-CASE-GSC-10376-1] c14 N71-27407
An improved solar concentrator
[NASA-CASE-MFS-23727-1] c44 N78-13556
- ORBITAL ASSEMBLY**
Structural members, method and apparatus
[NASA-CASE-MSC-16217-1] c18 N78-22146
- ORBITAL MECHANICS**
Design and development of space shuttle system for delivering payload to earth orbit or celestial orbit
[NASA-CASE-MSC-12391] c30 N73-12884
- ORBITAL SPACE STATIONS**
Radial module manned space station with artificial gravity environment
[NASA-CASE-IMS-01906] c31 N70-41373
Internal and external, serpentine devices for performing physical operations around orbital space stations
[NASA-CASE-IMP-05344] c31 N71-16345
Describing apparatus for manufacturing operations in low and zero gravity environments of orbital space flight
[NASA-CASE-MFS-20410] c15 N71-19214
- ORGANIC CHEMISTRY**
Process for interfacial polymerization of pyromellitic dianhydride and tetraamino benzene
[NASA-CASE-ILA-03104] c06 N71-11235
- Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844
- ORGANIC COMPOUNDS**
Synthesis of high purity dianilinosilanes
[NASA-CASE-IMP-06409] c06 N71-23230
Preparation of dicyanoacetylene and vinylidene copolymers using organic compounds
[NASA-CASE-IMP-03250] c06 N71-23500
Infusible polymer production from reaction of polyfunctional epoxy resins with polyfunctional aziridine compounds
[NASA-CASE-NPO-10701] c06 N71-28620
Composition of diffuse reflective coating containing sodium chloride in combination with diol solvent and organic wetting and drying agents
[NASA-CASE-GSC-11214-1] c06 N73-13128
Automated system for identifying traces of organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245
Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples
[NASA-CASE-MSC-14428-1] c23 N77-17161
- ORGANIC SILICON COMPOUNDS**
Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers
[NASA-CASE-ARC-10915-2] c27 N79-18052
- ORGANOMETALLIC COMPOUNDS**
Ammonium perchlorate composite propellant with organic Cu/II/ chelate catalytic additive
[NASA-CASE-LAR-10173-1] c27 N71-14090
Organometallic compounds of niobium and tantalum useful for film deposition
[NASA-CASE-IMP-04023] c06 N71-28808
- ORGANOMETALLIC POLYMERS**
Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-10364] c06 N71-27363
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids
[NASA-CASE-MFS-22411-1] c37 N74-21058
- ORIFICE FLOW**
Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-IMS-05894-1] c15 N69-21924
- ORIFICES**
Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLB-03157] c28 N71-24736
- ORTHOGONAL MULTIPLEXING THEORY**
Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917
- ORTHOGONALITY**
Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790
- ORTHOPEDICS**
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694
- ORTHOTROPIC CYLINDERS**
Method for shaping regeneratively cooled rocket motor casing having minimum thickness at each channel cross section
[NASA-CASE-XLB-00409] c28 N71-15658
Regeneratively cooled rocket motor casing with tapered channels to insure minimum thicknesses at each channel cross section for necessary strength requirements
[NASA-CASE-XLB-05689] c28 N71-15659
- OSCILLATION DAMPERS**
Design and operation of viscous pendulum damper
[NASA-CASE-ILA-02079] c12 N71-16894
Stabilization system for gravity-oriented satellites using single damper rod
[NASA-CASE-XAC-01591] c31 N71-17729
Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers

OSCILLATIONS

SUBJECT INDEX

[NASA-CASE-LAR-10193-1] c15 N71-27146
 Damper system for alleviating air flow shock loads on wind tunnel models
 [NASA-CASE-XLA-09480] c11 N71-33612

OSCILLATIONS
 Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
 [NASA-CASE-ERC-10403-1] c10 N73-26228

OSCILLATORS
 Oscillatory electromagnetic mirror drive system for horizon scanners
 [NASA-CASE-XLA-03724] c14 N69-27461
 Frequency control network for current feedback oscillators converting dc voltage to ac or higher dc voltages
 [NASA-CASE-GSC-10041-1] c10 N71-19418
 Development and characteristics of oscillating static inverter
 [NASA-CASE-XGS-05289] c09 N71-19470
 Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
 [NASA-CASE-XMP-04367] c09 N71-23545
 Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
 [NASA-CASE-LEW-10385-1] c10 N71-25899
 Wideband voltage controlled oscillator with high phase stability
 [NASA-CASE-XLA-03893] c10 N71-27271
 Variable frequency subcarrier oscillator with temperature compensation
 [NASA-CASE-XMP-03916] c09 N71-28810
 Inverter oscillator with voltage feedback
 [NASA-CASE-NPO-10760] c09 N72-25254
 Controlled oscillator system with a time dependent output frequency
 [NASA-CASE-NPO-11962-1] c33 N74-10194
 Ultra-stable oscillator with complementary transistors
 [NASA-CASE-GSC-11513-1] c33 N74-20862
 LC-oscillator with automatic stabilized amplitude via bias current control --- power supply circuit for transducers
 [NASA-CASE-MPS-21698-1] c33 N74-26732
 Frequency modulated oscillator
 [NASA-CASE-MPS-23181-1] c33 N77-17351
 Distributed feedback acoustic surface wave oscillator
 [NASA-CASE-NPO-13673-1] c71 N77-26919
 Digital numerically controlled oscillator
 [NASA-CASE-MSC-16747-1] c33 N79-17138

OSCILLOSCOPES
 Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
 [NASA-CASE-NPO-10251] c10 N71-27365
 Scan oscilloscope for mapping surface sensitivity of photomultiplier tube
 [NASA-CASE-LAR-10278-1] c09 N72-23172
 Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
 [NASA-CASE-LAR-10319-1] c14 N73-32322
 X-Y alphanumeric character generator for oscilloscopes
 [NASA-CASE-GSC-11582-1] c33 N75-19517

OUTER PLANETS EXPLORERS
 Spectrometer integrated with a facsimile camera
 [NASA-CASE-LAR-11207-1] c35 N75-19613

OUTGASSING
 Optical characteristics measuring apparatus
 [NASA-CASE-XMP-08840] c23 N71-16365
 Helium outgassing process for fused glass coating on ion accelerator grid
 [NASA-CASE-LEW-10278-1] c15 N71-28582
 Fluid polydimethylsiloxane resin with low outgassing properties in cured state
 [NASA-CASE-GSC-11358-1] c06 N73-26100

OUTPUT
 Nonlinear nonsingular feedback shift registers
 [NASA-CASE-NPO-13451-1] c33 N76-14373

OVENS
 Oven for heat treating heat shields
 [NASA-CASE-XMS-04318] c15 N69-27871

OVERVOLTAGE
 Spark gap type protective circuit for fast sensing and removal of overvoltage conditions

[NASA-CASE-XAC-08981] c09 N69-39897
 Sensing circuit for instantaneous reaction to power overloads
 [NASA-CASE-GSC-10667-1] c10 N71-33129
 Overvoltage protection network
 [NASA-CASE-ARC-10197-1] c33 N74-17929
 Overload protection system for power inverter
 [NASA-CASE-NPO-13872-1] c33 N78-10377

OXIDATION
 Silicide coating process and composition for protection of refractory metals from oxidation
 [NASA-CASE-XLB-10910] c18 N71-29040
 Automated analysis of oxidative metabolites
 [NASA-CASE-ARC-10469-1] c25 N75-12086
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13464-2] c44 N76-29704
 Process of forming catalytic surfaces for wet oxidation reactions
 [NASA-CASE-MSC-14831-1] c25 N78-10225
 In situ self cross-linking of polyvinyl alcohol battery separators
 [NASA-CASE-LEW-12972-1] c23 N78-22157

OXIDATION RESISTANCE
 Nickel base alloy with resistance to oxidation at high temperatures and superior stress-rupture properties
 [NASA-CASE-XLB-02082] c17 N71-16026
 Method of protecting the surface of a substrate --- by applying aluminide coating
 [NASA-CASE-LEW-11696-1] c37 N75-13261
 Duplex aluminized coatings
 [NASA-CASE-LEW-11696-2] c26 N75-19408
 High temperature oxidation resistant cermet compositions
 [NASA-CASE-NPO-13666-1] c27 N77-13217
 High temperature resistant cermet and ceramic compositions
 [NASA-CASE-NPO-13690-2] c27 N79-14213
 Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications
 [NASA-CASE-LEW-11930-4] c24 N79-17916

OXIDATION-REDUCTION REACTIONS
 Formulated plastic separators for soluble electrode cells
 [NASA-CASE-LEW-12358-2] c25 N78-25149
 Catalyst surfaces for the chromous/chronic redox couple
 [NASA-CASE-LEW-13148-1] c44 N79-14538

OXIDE FILMS
 Stainless steel panel for selective absorption of solar energy and the method of producing said panel
 [NASA-CASE-MPS-23518-2] c44 N77-31611

OXIDES
 Utilization of lithium p-lithiphenoxide to prepare star polymers
 [NASA-CASE-NPO-10998-1] c06 N73-32029

OXIDIZERS
 Electrolytically regenerative hydrogen-oxygen fuel cells
 [NASA-CASE-XLB-04526] c03 N71-11052
 Fuel and oxidizer injection head for thrust chamber of reaction engine
 [NASA-CASE-NPO-10046] c28 N72-17843

OXYMETER
 Ear oximeter for monitoring blood oxygenation and pressure, pulse rate, and pressure pulse curve, using dc and ac amplifiers
 [NASA-CASE-XAC-05422] c04 N71-23185

OXYGEN
 Analytical test apparatus and method for determining oxygen content in alkali liquid metal
 [NASA-CASE-XLE-01997] c06 N71-23527
 Heated tungsten filter for removing oxygen impurities from cesium
 [NASA-CASE-XMP-04262-2] c17 N71-26773
 Method for detecting oxygen in gas by thermoluminescence
 [NASA-CASE-LAR-10668-1] c06 N73-16106
 Method for obtaining oxygen from lunar or similar soil
 [NASA-CASE-MSC-12408-1] c46 N74-13011
 Nonflammable coating compositions --- for use in high oxygen environments
 [NASA-CASE-MPS-20486-2] c27 N74-17283

OXYGEN CONSUMPTION
 Respiration analyzing method and apparatus for

determining subjects oxygen consumption in aerospace environments
[NASA-CASE-XFP-08403] c05 N71-11202

OXYGEN FLUORIDES
Utilization of oxygen difluoride for syntheses of fluoropolymers
[NASA-CASE-NFO-12061-1] c27 N76-16228

OXYGEN METABOLISM
Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings
[NASA-CASE-HFS-21415-1] c52 N74-20728

OXYGEN PLASMA
Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers
[NASA-CASE-ARC-10915-2] c27 N79-18052

OXYGEN REGULATORS
Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-HFS-23059-1] c44 N76-27664

OXYGEN SUPPLY EQUIPMENT
Self-contained breathing apparatus
[NASA-CASE-HSC-14733-1] c54 N76-24900

OZONE
Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210
Ozonation of cooling tower waters
[NASA-CASE-NFO-14340-1] c25 N79-10167

P

P-N JUNCTIONS

Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191

Semiconductor p-n junction on needle apex to provide stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422

Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-XGS-07801] c09 N71-12513

Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440

Electrode connection for n-on-p silicon solar cell
[NASA-CASE-XLE-04787] c03 N71-20492

Water content in vapor deposition atmosphere for forming n-type and p-type junctions of zinc doped gallium arsenide
[NASA-CASE-XNP-01961] c26 N71-29156

Method for making semiconductor p-n junction stress and strain sensor
[NASA-CASE-XLA-04980-2] c14 N72-28438

Resin for protecting p-n semiconductor junction surface
[NASA-CASE-ERC-10339-1] c18 N73-30532

Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in p-n junction solar cells
[NASA-CASE-NPO-14100-1] c44 N79-12541

Back wall solar cell
[NASA-CASE-LEW-12236-2] c44 N79-14528

P-TYPE SEMICONDUCTORS

Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654

Integrated p-channel MOS gyrator
[NASA-CASE-HFS-22343-1] c33 N74-34638

PACKAGES

Impact testing machine for imparting large impact forces on high velocity packages
[NASA-CASE-XNP-04817] c14 N71-23225

One hand backpack harness
[NASA-CASE-LAR-10102-1] c05 N72-23085

PACKAGING

Characteristics of device for folding thin flexible sheets into compact configuration
[NASA-CASE-XLA-00137] c15 N70-33180

Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
[NASA-CASE-XLA-00138] c31 N70-37981

Development and characteristics of system for skin packaging articles using thermoplastic film heating and vacuum operated equipment
[NASA-CASE-HFS-20855] c15 N73-27405

Double-sided solar cell package
[NASA-CASE-NPO-14199-1] c44 N78-22470

PACKING DENSITY

Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936

PACKINGS (SEALS)

Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541

PAD

Lubricated journal bearing
[NASA-CASE-LEW-11076-3] c37 N75-30562

PAINTS

Nitroaniline sulfate, intumescent paints
[NASA-CASE-ARC-10099-1] c18 N71-15469

Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
[NASA-CASE-XGS-04799] c18 N71-24183

White paint production by heating impure aluminum silicate clay having low solar absorptance
[NASA-CASE-XNP-02139] c18 N71-24184

PALLADIUM COMPOUNDS

Preventing pressure buildup in electrochemical cells by reacting palladium oxide with evolved hydrogen
[NASA-CASE-XGS-01419] c03 N70-41864

Separation of dissolved hydrogen from water and coating with palladium black
[NASA-CASE-HSC-13335-1] c06 N72-31140

PANELS

Nut and bolt fastener permitting all-directional movement of skin sections with respect to supporting structure
[NASA-CASE-XLA-01807] c15 N71-10799

Multilayer insulation panels for cryogenic liquid containers
[NASA-CASE-HFS-14023] c33 N71-25351

Method and apparatus for fabricating solar cell panels
[NASA-CASE-XNP-03413] c03 N71-26726

Method for making pressurized meteoroid penetration detector panels
[NASA-CASE-XLA-08916] c15 N71-29018

Honeycomb panels of minimal surface, periodic tubule layers
[NASA-CASE-ERC-10364] c18 N72-25540

Fabrication of light weight panel structures using pairs of elongate hollow ribs of said semicircular configuration
[NASA-CASE-LAR-11052-1] c32 N73-13929

Pressurized panel meteoroid detector
[NASA-CASE-XLA-08916-2] c14 N73-28487

Ultrasonic scanner for radial and flat panels
[NASA-CASE-HFS-20335-1] c35 N74-10415

Folding structure fabricated of rigid panels
[NASA-CASE-XHQ-02146] c18 N75-27040

Varying density composite structure
[NASA-CASE-LAR-11181-1] c39 N75-31479

Method of making a composite sandwich lattice structure
[NASA-CASE-LAR-11898-2] c24 N78-17149

Selective coating for solar panels --- using black chrome and black nickel
[NASA-CASE-LEW-12159-1] c44 N78-19599

High visibility air sea rescue panel
[NASA-CASE-HSC-12564-2] c03 N78-25070

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-HFS-23518-3] c44 N78-25557

Hexagon solar power panel
[NASA-CASE-NPO-12148-1] c44 N78-27515

Structural wood panels with improved fire resistance --- using prepolymers and hexamethylenetetramine
[NASA-CASE-ARC-11174-1] c24 N78-28178

An improved solar panel and method for fabricating the same
[NASA-CASE-NPO-14490-1] c44 N79-18445

PAPER (MATERIAL)
Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

PAPERS
Guide for a typewriter
[NASA-CASE-HFS-15218-1] c37 N77-19457

PARABOLIC ANTENNAS
Device for improving efficiency of parabolic horn antenna system for linearly polarized

PARABOLIC REFLECTORS

SUBJECT INDEX

signals
[NASA-CASE-XNP-00611] c09 N70-35219

Drive system for parabolic tracking antenna with reversible action and minimal backlash
[NASA-CASE-NPO-10173] c15 N71-24696

Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

Telescoping columns --- parabolic antenna support
[NASA-CASE-LAR-12195-1] c37 N78-33446

PARABOLIC REFLECTORS

Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-XNP-00540] c09 N70-35382

Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580

Self erecting parabolic reflector design for use in space
[NASA-CASE-XMS-03454] c09 N71-20658

Plural beam antenna with parabolic reflectors
[NASA-CASE-GSC-11013-1] c09 N73-19234

Multimode antenna feed system for microwave and broadband communication
[NASA-CASE-GSC-11046-1] c07 N73-28013

Single frequency, two feed dish antenna having switchable beamwidth
[NASA-CASE-GSC-11968-1] c32 N76-15329

Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N79-14526

PARABOLOID MIRRORS

Optical data processing system using paraboloidal reflecting surfaces
[NASA-CASE-GSC-11296-1] c23 N73-30666

Three mirror glancing incidence system for X-ray telescope
[NASA-CASE-NPS-21372-1] c74 N74-27866

PARACHUTE DESCENT

Multiple parachute system for landing control of Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804

Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009

Piston-in bore cutter for severing parachute control lines and sealing cable hole to prevent water leakage into load
[NASA-CASE-XMS-04072] c15 N70-42017

Development and operating principles of gas generator for deploying recovery parachutes from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N73-13898

PARACHUTE FABRICS

Lightweight, variable solidity knitted parachute fabric --- for aerodynamic decelerators
[NASA-CASE-LAR-10776-1] c02 N74-10034

System and method for refurbishing and processing parachutes
[NASA-CASE-KSC-11042-1] c02 N78-22026

PARACHUTES

System for controlling torque buildup in suspension of gondola connected to balloon by parachute shroud lines
[NASA-CASE-GSC-11077-1] c02 N73-13008

Deploy/release system --- model aircraft flight control
[NASA-CASE-LAR-11575-1] c02 N76-16014

PARAGLIDERS

Multiple parachute system for landing control of Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804

PARALLAX

Projection system for display of parallax and perspective
[NASA-CASE-NPS-23194-1] c35 N78-17357

PARALLEL PLATES

Describing instrument capable of measuring true shear viscosity of liquids and viscoelastic materials
[NASA-CASE-XNP-09462] c14 N71-17584

Dynamic capacitor having a peripherally driven element and system incorporating the same
[NASA-CASE-XNP-02899-1] c33 N79-21265

PARALLEL PROCESSING (COMPUTERS)

Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N79-20751

PARAMETRIC AMPLIFIERS

Development of idler feedback system to reduce electronic noise problem in two parametric

amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-25258

Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

PARAWINGS

Method for deployment of flexible wing glider from space vehicle with minimum impact and loading
[NASA-CASE-XMS-00907] c02 N70-41630

PARKING

Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480

PARTIAL PRESSURE

Equipment for measuring partial water vapor pressure in gas tank
[NASA-CASE-XMS-01618] c14 N71-20741

PARTICLE ACCELERATION

Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777

Method and apparatus for use in forming highly collimated beam of microparticles with high charge to mass ratio and injecting beam into electrostatic accelerating tube
[NASA-CASE-XGS-06628] c24 N71-16213

PARTICLE ACCELERATOR TARGETS

Dispensing targets for ion beam particle generators
[NASA-CASE-NPO-13112-1] c73 N74-26767

Deuterium pass through target --- neutron emitting target
[NASA-CASE-LEW-11866-1] c72 N76-15860

Closed loop spray cooling apparatus --- for particle accelerator targets
[NASA-CASE-LEW-11981-1] c31 N78-17777

PARTICLE BEAMS

Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602

Doppler shift system --- system for measuring velocities of radiating particles
[NASA-CASE-NQB-10740-1] c72 N74-19310

PARTICLE COLLISIONS

Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990

PARTICLE DENSITY (CONCENTRATION)

Particle detector for measuring micrometeoroid velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332

PARTICLE EMISSION

Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401

Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328

PARTICLE ENERGY

Particle detector for indicating incidence and energy of minute space particles
[NASA-CASE-XLA-00135] c14 N70-33322

Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

PARTICLE MASS

Cosmic dust analyzer
[NASA-CASE-HSC-13802-2] c35 N76-15431

Microbalance --- for measuring particle mass
[NASA-CASE-HSC-11242] c35 N78-17358

PARTICLE MOTION

Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393

PARTICLE PRODUCTION

Production of I-123
[NASA-CASE-LEW-11390-3] c25 N76-29379

PARTICLE SIZE DISTRIBUTION

Micropacked column for rapid chromatographic analysis using low gas flow rates
[NASA-CASE-XNP-04816] c06 N69-39936

Apparatus for producing hydrocarbon slurry containing small particles of magnesium for use as jet aircraft fuel
[NASA-CASE-XLE-00010] c15 N70-33382

Production of high strength refractory compounds and microconstituents into refractory metal matrix
[NASA-CASE-XLE-03940] c18 N71-26153

SUBJECT INDEX

PERFLUORO COMPOUNDS

- Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627
- Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628
- Grain refinement control in TIG arc welding
[NASA-CASE-MSC-19095-1] c37 N75-19683
- Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434
- Fire protection covering for small diameter missiles
[NASA-CASE-ARC-11104-1] c15 N78-13110
- Apparatus for handling micron size range particulate material
[NASA-CASE-NPO-10151] c37 N78-17386
- Process for preparation of large-particle size monodisperse latexes
[NASA-CASE-MPS-25000-1] c25 N79-14171
- PARTICLE TRAJECTORIES**
- Micrometeoroid velocity and trajectory analyzer
[NASA-CASE-GSC-11892-1] c35 N76-15433
- PARTICLES**
- Development of device for separating, collecting, and viewing soil particles
[NASA-CASE-INP-09770] c15 N71-20440
- Development of apparatus for producing metal powder particles of controlled size
[NASA-CASE-XLE-06461-2] c17 N72-28535
- Particle parameter analyzing system --- x-y plotter circuits and display
[NASA-CASE-XLE-06094] c33 N78-17293
- Surfactant-assisted liquefaction of particulate carbonaceous substances
[NASA-CASE-NPO-13904-1] c25 N79-11152
- PARTICULATE SAMPLING**
- Design and development of device to prevent clogging in hoppers containing particulate materials
[NASA-CASE-LAR-10961-1] c15 N73-12496
- Development and operation of apparatus for sampling particulates in gases in upper atmosphere
[NASA-CASE-BQN-10037-1] c14 N73-27376
- Electrophoretic sample insertion --- device for uniformly distributing samples in flow path
[NASA-CASE-MPS-21395-1] c25 N74-26948
- Sampler of gas borne particles
[NASA-CASE-NPO-13396-1] c35 N76-18401
- Biocontamination and particulate detection system
[NASA-CASE-NPO-13953-1] c51 N78-22587
- Fine particulate capture device
[NASA-CASE-LEW-11583-1] c35 N79-17192
- PASSAGEWAYS**
- Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-IMS-10993] c15 N71-28936
- PASSIVE SATELLITES**
- Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-XLA-00210] c30 N70-40309
- Apparatus for measuring backscatter and transmission characteristics of sample segment of large spherical passive satellites
[NASA-CASE-XGS-02608] c07 N70-41678
- Forming inflatable panels erectable in space for passive communication satellite
[NASA-CASE-XLA-03497] c15 N71-23052
- PATIENTS**
- Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-INP-06589] c05 N71-23159
- PATTERN RECOGNITION**
- Roughness detector for recording surface pattern of irregularities
[NASA-CASE-XLA-00203] c14 N70-34161
- Auditory display for the blind
[NASA-CASE-BQN-10832-1] c71 N74-21014
- PAYLOAD RETRIEVAL (STS)**
- Simulator method and apparatus for practicing the mating of an observer-controlled object with a target
[NASA-CASE-MPS-23052-2] c74 N79-13855
- PAYLOADS**
- Plastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778
- Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10582
- Payload/spent rocket engine case separation system
[NASA-CASE-XLA-05369] c31 N71-15687
- High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
- Payload soft landing system using stowable gas bag
[NASA-CASE-XLA-09881] c31 N71-16085
- Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-INP-06515] c14 N71-23227
- PCM TELEMETRY**
- Variable time constant, wide frequency range smoothing network for noise removal from pulse chains
[NASA-CASE-IGS-01983] c10 N70-41964
- Data acquisition and processing system with buffer storage and timing device for magnetic tape recording of PCM data and timing information
[NASA-CASE-NPO-12107] c08 N71-27255
- High speed direct binary to binary coded decimal converter for use in PCM telemetry systems
[NASA-CASE-KSC-10326] c08 N72-21197
- PEELING**
- Wire stripper
[NASA-CASE-FRC-10111-1] c37 N79-10419
- PELLETS**
- Supporting structure for simultaneous exposure of pellets to X rays
[NASA-CASE-INP-06031] c15 N71-15606
- PELTIER EFFECTS**
- Use of silicon controlled rectifier shorting circuit to protect thermoelectric generator from source from thermal destruction
[NASA-CASE-IGS-04808] c03 N69-25146
- PENETRANTS**
- Dye penetrant and technique for nondestructive tests of solid surfaces contacted by liquid oxygen
[NASA-CASE-INP-02221] c18 N71-27170
- PENETRATION**
- Method and device for detection of surface discontinuities or defects
[NASA-CASE-MSC-14187-1] c35 N74-32879
- PENETROMETERS**
- Development and characteristics of penetrometer for measuring physical properties of lunar surface
[NASA-CASE-XLA-00934] c14 N71-22765
- Penetrometer for empirically determining load-bearing characteristics of inclined surfaces of remotely located bodies of soil
[NASA-CASE-NPO-11103] c14 N72-21406
- Portable penetrometer for analyzing soil characteristics
[NASA-CASE-MPS-20774] c14 N73-19420
- Auger-type soil penetrometer for burrowing into soil formations
[NASA-CASE-INP-05530] c14 N73-32321
- Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367
- PERCEPTION**
- Measuring method for cutaneous perception using instrument with elongated tubular housing
[NASA-CASE-MSC-13609-1] c05 N72-25122
- PERFLUORO COMPOUNDS**
- Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins
[NASA-CASE-NPO-10768] c06 N71-27254
- Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
- Reaction of polyperfluoropolyenes with fluorine to produce saturated polymer chain or create reactive sites on chain
[NASA-CASE-NPO-10862] c06 N72-22107
- Silphenylenesiloxane polymer with in-chain perfluoroalkyl groups
[NASA-CASE-MPS-20979] c06 N72-25151

PERFORATED PLATES

SUBJECT INDEX

Polymerization of perfluorobutadiene
[NASA-CASE-NPO-10863-2] c06 N72-25152

Formation of polyurethane resins from hydroxy terminated perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144

Process for preparing disilanolis with in-chain perfluoroalkyl groups
[NASA-CASE-NPS-20979-2] c06 N73-32030

Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides
[NASA-CASE-NPS-22356-1] c23 N75-30256

PERFORATED PLATES

Helium outgassing process for fused glass coating on ion accelerator grid
[NASA-CASE-LEW-10278-1] c15 N71-28582

PERFORATED SHELLS

Method of fabricating an article with cavities --- with thin bottom walls
[NASA-CASE-LAR-10318-1] c31 N74-18089

PERFORMANCE PREDICTION

Failure detection and control means for improved drift performance of a gimbaled platform system
[NASA-CASE-NPS-23551-1] c04 N76-26175

PERFORMANCE TESTS

Flexible, frangible electrochemical cell and package for operation in low temperature environment
[NASA-CASE-XGS-10010] c03 N72-15986

Test method and equipment for identifying faulty cells or connections in solar cell assemblies
[NASA-CASE-NPO-10401] c03 N72-20033

Development of apparatus for detonating explosive devices in order to determine forces generated and detonation propagation rate
[NASA-CASE-LAR-10800-1] c33 N72-27959

PERIODIC VARIATIONS

Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking
[NASA-CASE-NPS-23267-1] c35 N77-20401

PERMEABILITY

Water insoluble, cationic permselective membrane
[NASA-CASE-NPO-11091] c18 N72-22567

A system for detecting substructure microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556

PEROXIDES

Low pressure perfluorobutadiene polymerization with peroxide catalysts
[NASA-CASE-NPO-10447] c06 N70-11252

PERSPIRATION

Manufacturing process for making perspiration resistant-stress resistant biopotential electrode
[NASA-CASE-NSC-90153-2] c05 N72-25120

PERTURBATION

Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597

PERTURBATION THEORY

Dual wavelength scanning Doppler velocimeter --- without perturbation of flow fields
[NASA-CASE-ARC-10637-1] c35 N75-16783

PHASE COHERENCE

Apparatus for estimating amplitude and sign of phase difference or time lag between two signals
[NASA-CASE-NPO-11203] c10 N72-20224

Coherent receiver employing nonlinear coherence detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523

PHASE CONTROL

System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes
[NASA-CASE-NPO-10214] c10 N71-26577

Wideband voltage controlled oscillator with high phase stability
[NASA-CASE-XLA-03893] c10 N71-27271

Voltage controlled oscillator circuit for two-phase induction motor control
[NASA-CASE-NPS-21465-1] c10 N73-32145

System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519

PHASE DEMODULATORS

Development of phase demodulation system with

two phase locked loops
[NASA-CASE-XNP-00777] c10 N71-19469

Receiving and tracking phase modulated signals
[NASA-CASE-NSC-16170-1] c32 N77-12248

Linear phase demodulator including a phase locked loop with auxiliary feedback loop
[NASA-CASE-GSC-12018-1] c33 N77-14334

PHASE DETECTORS

Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
[NASA-CASE-XNP-00701] c09 N70-40272

Bipolar phase detector and corrector for split phase PCM data signals
[NASA-CASE-XGS-01590] c07 N71-12392

High speed phase detector design indicating phase relationship between two square wave input signals
[NASA-CASE-XNP-01306-2] c09 N71-24596

Phase protection system for ac power lines
[NASA-CASE-NSC-17832-1] c33 N74-14956

Low distortion automatic phase control circuit --- voltage controlled phase shifter
[NASA-CASE-NPS-21671-1] c33 N74-22885

Correlation type phase detector --- with time correlation integrator for frequency multiplexed signals
[NASA-CASE-GSC-11744-1] c33 N75-26243

Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331

Frequency discriminator and phase detector circuit
[NASA-CASE-NPO-11515-1] c33 N77-13315

Phase substitution of spare converter for a failed one of parallel phase staggered converters
[NASA-CASE-NPO-13812-1] c33 N77-30365

Apparatus and method for stabilized phase detection for binary signal tracking loops
[NASA-CASE-NSC-16461-1] c33 N79-11313

PHASE DEVIATION

System for stabilizing cable phase delay utilizing a coaxial cable under pressure
[NASA-CASE-NPO-13138-1] c33 N74-17927

PHASE LOCK DEMODULATORS

Phase locked demodulator with bandwidth switching amplifier circuit
[NASA-CASE-XNP-01107] c10 N71-28859

PHASE LOCKED SYSTEMS

System for phase locking onto carrier frequency signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543

Phase locked loop with sideband rejecting properties in continuous wave tracking radar
[NASA-CASE-XNP-02723] c07 N70-41680

Development of automatic frequency discriminators and control for phase lock loop providing frequency preset capabilities
[NASA-CASE-XNP-08665] c10 N71-19467

Development and characteristics of burst synchronization detection system
[NASA-CASE-XMS-05605-1] c10 N71-19468

Development of phase demodulation system with two phase locked loops
[NASA-CASE-XNP-00777] c10 N71-19469

Diversity receiving system with diversity phase lock
[NASA-CASE-XGS-01222] c10 N71-20841

Phase locked phase modulation system with voltage controlled oscillator for final phase linearity
[NASA-CASE-XNP-05382] c10 N71-23544

Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865

Characteristics of data-aided carrier tracking loop used for tracking carrier in angle modulated communications system
[NASA-CASE-NPO-11282] c10 N73-16205

Filter for third order phase locked loops in signal receivers
[NASA-CASE-NPO-11941-1] c10 N73-27171

Improved phase lock loop for receiver in multichannel telemetry system with suppressed carrier
[NASA-CASE-NPO-11593-1] c07 N73-28012

Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628-1] c07 N73-30113

SUBJECT INDEX

PHOSPHINES

- Phase-locked servo system --- for synchronizing the rotation of slip ring assembly
[NASA-CASE-NFS-22073-1] c33 N75-13139
- Low speed phaselock speed control system --- for brushless dc motor
[NASA-CASE-GSC-11127-1] c09 N75-24758
- Digital phase-locked loop
[NASA-CASE-GSC-11623-1] c33 N75-25040
- Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245
- Receiving and tracking phase modulated signals
[NASA-CASE-MSC-16170-1] c32 N77-12248
- Discriminator aided phase lock acquisition for suppressed carrier signals
[NASA-CASE-NPO-14311-1] c32 N79-14276
- PN lock indicator for dithered PN code tracking loop
[NASA-CASE-NPO-14435-1] c33 N79-18224
- PHASE MODULATION**
- Plural channel data transmission system with quadrature modulation and complementary demodulation
[NASA-CASE-XAC-06302] c08 N71-19763
- Adaptive notch filter, using modulation techniques for reversed phase noise signal
[NASA-CASE-XMP-01892] c10 N71-22986
- Phase locked phase modulation system with voltage controlled oscillator for final phase linearity
[NASA-CASE-XMP-05382] c10 N71-23544
- Scanning signal phase and amplitude electronic control device with hybrid T waveguide junction
[NASA-CASE-NPO-10302] c10 N71-26142
- Phase modulator with tuned variable length electrical lines including coupling and varactor diode circuits
[NASA-CASE-MSC-13201-1] c07 N71-28429
- Multicarrier communications system for transmitting modulated signals from single transmitter
[NASA-CASE-NPO-11548] c07 N73-26118
- Decision feedback loop for tracking a polyphase modulated carrier
[NASA-CASE-NPO-13103-1] c32 N74-20811
- Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems
[NASA-CASE-GSC-11743-1] c32 N75-24981
- Phase modulating with odd and even finite power series of a modulating signal
[NASA-CASE-LAR-11607-1] c32 N77-14292
- Swept group delay measurement
[NASA-CASE-NPO-13909-1] c33 N78-25319
- Quadrature demodulation
[NASA-CASE-GSC-12137-1] c33 N78-32338
- Method and apparatus for quadriphase-shift-key and linear phase modulation
[NASA-CASE-NPO-14444-1] c32 N79-18155
- Closed loop solar array-ion thruster system with power control circuitry
[NASA-CASE-LEW-12780-1] c20 N79-20179
- PHASE SHIFT**
- Bipolar phase detector and corrector for split phase PCM data signals
[NASA-CASE-XGS-01590] c07 N71-12392
- Left and right hand circular electromagnetic polarization excitation by phase shifter and hybrid networks
[NASA-CASE-GSC-10021-1] c09 N71-24595
- Pulse code modulated data from frequency multiplex communications by digital phase shift or carrier
[NASA-CASE-NPO-11338] c08 N72-25208
- Power control for hot gas engines
[NASA-CASE-NPO-14220-1] c37 N78-25430
- Time domain phase measuring apparatus
[NASA-CASE-GSC-12228-1] c33 N79-10338
- A phase-angle controller for stirling engines
[NASA-CASE-NPO-14388-1] c37 N79-17217
- PHASE SHIFT CIRCUITS**
- Design of gyrator circuit using operational amplifiers to replace ungrounded inductors
[NASA-CASE-XAC-10608-1] c09 N71-12517
- Phase shifting circuit for selecting phase of input signal
[NASA-CASE-ARC-10269-1] c10 N72-16172
- Continuously variable, voltage-controlled phase shifter
[NASA-CASE-NPO-11129] c09 N72-33204
- Voltage controlled oscillator circuit for two-phase induction motor control
[NASA-CASE-NFS-21465-1] c10 N73-32145
- Low distortion automatic phase control circuit --- voltage controlled phase shifter
[NASA-CASE-NFS-21671-1] c33 N74-22885
- Frequency translating phase conjugation circuit for active retrodirective antenna array
[NASA-CASE-NPO-14536-1] c32 N79-14277
- PHASE SHIFT KEYING**
- Decision feedback loop for tracking a polyphase modulated carrier
[NASA-CASE-NPO-13103-1] c32 N74-20811
- Differential phase shift keyed communication system
[NASA-CASE-MSC-14065-1] c32 N74-26654
- Differential phase shift keyed signal resolver
[NASA-CASE-MSC-14066-1] c33 N74-27705
- Unbalanced quadriphase demodulator
[NASA-CASE-MSC-14840-1] c32 N77-24331
- PHASE SWITCHING INTERFEROMETERS**
- Interferometric tuning acquisition and tracking radar antenna system
[NASA-CASE-XMS-09610] c07 N71-24625
- PHASE TRANSFORMATIONS**
- Magnetohydrodynamic generator for mixing nonconductive gas and liquid metal mist to form slugs
[NASA-CASE-XLE-02083] c03 N69-39983
- Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635
- PHASE VELOCITY**
- Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity
[NASA-CASE-LAR-11435-1] c35 N76-15432
- PHASED ARRAYS**
- Development of phase control coupling for use with phased array antenna
[NASA-CASE-ERC-10285] c10 N73-16206
- Phase conjugation method and apparatus for an active retrodirective antenna array
[NASA-CASE-NPO-13641-1] c32 N77-24340
- Phased array antenna control
[NASA-CASE-MSC-14939-1] c32 N77-12264
- Coaxial phased array antenna --- spacecraft antenna
[NASA-CASE-MSC-16800-1] c32 N79-19194
- PHASED LOCKED SYSTEMS**
- Bit synchronization system using digital data transition tracking phased locked loop
[NASA-CASE-NPO-10844] c07 N72-20140
- Digital second-order phase-locked loop
[NASA-CASE-NPO-11905-1] c33 N74-12887
- Linear phase demodulator including a phase locked loop with auxiliary feedback loop
[NASA-CASE-GSC-12018-1] c33 N77-14334
- PHENOLIC RESINS**
- Bonding method in the manufacture of continuous regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260
- PHENOLS**
- Utilization of lithium p-lithiophenoxide to prepare star polymers
[NASA-CASE-NPO-10998-1] c06 N73-32029
- PHONOCARDIOGRAPHY**
- Phonocardiogram simulator producing electrical voltage waves to control amplitude and duration between simulated sounds
[NASA-CASE-XKS-10804] c05 N71-24606
- Vibrophonocardiograph comprising low weight and small volume piezoelectric microphone with amplifier having high input impedance for high sensitivity and low frequency response
[NASA-CASE-XPR-07172] c05 N71-27234
- PHOSPHATES**
- Low concentration alkaline solution treatment of aluminum with metal phosphate surface coatings to improve chemical bonding and reduce coating weight
[NASA-CASE-XLA-01995] c18 N71-23047
- PHOSPHINES**
- Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-2] c27 N78-25216
- Heat resistant polymers of oxidized styrylphosphine

PHOSPHONITRILES

SUBJECT INDEX

[NASA-CASE-HSC-14903-3] c27 N78-25217
Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-HSC-14903-1] c27 N78-32256

PHOSPHONITRILES
Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-12364] c06 N71-27363

PHOSPHORS
Cathode ray tube with coating of phosphor and cobalt oxides
[NASA-CASE-ERC-10468] c09 N72-20206

PHOTOABSORPTION
Photomechanical transducer --- using thin strips of photoabsorptive metal or polymeric film with strain gages
[NASA-CASE-NPO-14363-1] c76 N79-14908

PHOTOCATHODES
Spectrometer using photoelectric effect to obtain spectral data
[NASA-CASE-IXP-04161] c14 N71-15599
III-V photocathode with nitrogen doping for increased quantum efficiency
[NASA-CASE-NPO-12134-1] c33 N76-31409

PHOTOCHEMICAL REACTIONS
Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-HSC-16074-1] c27 N77-14262
Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255
Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field
[NASA-CASE-LEW-12465-1] c25 N78-25148

PHOTOCONDUCTIVE CELLS
Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751
Plural output optometric sample cell and analysis system
[NASA-CASE-NPO-10233-1] c74 N78-33913

PHOTOCONDUCTIVITY
Photofabrication techniques for selective removal of conductive metals oxide coatings from nonconductive substrates
[NASA-CASE-ERC-10108] c06 N72-21094
Method for applying photographic resists to otherwise incompatible substrates
[NASA-CASE-HSC-18107-1] c35 N79-19319

PHOTOCONDUCTORS
Electronic divider and multiplier for analog electric signals
[NASA-CASE-IFR-05637] c09 N71-19480

PHOTODIODES
Shock isolator for operating a diode laser and closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515

PHOTODISSOCIATION
Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field
[NASA-CASE-LEW-12465-1] c25 N78-25148

PHOTOELECTRIC CELLS
Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-IGS-01159] c21 N71-10678
Method of and device for determining the characteristics and flux distribution of micrometeorites --- scanning puncture holes in sheet material with photoelectric cell
[NASA-CASE-NPO-12127-1] c91 N74-13130

PHOTOELECTRIC EFFECT
Spectrometer using photoelectric effect to obtain spectral data
[NASA-CASE-IXP-04161] c14 N71-15599

PHOTOELECTRIC EMISSION
High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

PHOTOELECTRIC MATERIALS
Light radiation direction indicator with baffle of two parallel grids
[NASA-CASE-IXP-03930] c14 N69-24331
Use of thin film light detector
[NASA-CASE-NPO-11432-2] c35 N74-15090

PHOTOELECTRON SPECTROSCOPY

Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429

PHOTOELECTRONS

High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

PHOTOGRAPHIC EQUIPMENT

Camera protecting device for use in photographing rocket engine nozzles or other engine components
[NASA-CASE-NPO-10174] c14 N71-18465
Method of treating the surface of a glass member
[NASA-CASE-GSC-12110-1] c27 N77-32308
System for forming a quadrifid image comprising angularly related fields of view of a three dimensional object
[NASA-CASE-NPO-14219-1] c35 N78-22348

PHOTOGRAPHIC FILM

Longitudinal film gate and lock mechanism for securing film in motion picture cameras under vibration and high acceleration loads
[NASA-CASE-LAR-10686] c14 N71-28935
Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-HSC-12448-1] c14 N72-20394
Mechanical exposure interlock device for preventing film overexposure in oscilloscope camera
[NASA-CASE-LAR-10319-1] c14 N73-32322
Optical noise suppression device and method --- laser light exposing film
[NASA-CASE-HSC-12640-1] c74 N76-31998
Selective image area control of X-ray film exposure density
[NASA-CASE-NPO-13808-1] c35 N78-15461

PHOTOGRAPHIC MEASUREMENT

Photographic method for measuring viscoelastic strain in solid propellants and other materials
[NASA-CASE-IXP-01153] c32 N71-17645
Impact measuring technique for determining size of hypervelocity projectiles
[NASA-CASE-LAR-10913] c14 N72-16282
TV fatigue crack monitoring system
[NASA-CASE-LAR-11490-1] c39 N78-16387

PHOTOGRAPHIC PROCESSING

Method and apparatus for producing an image from a transparent object
[NASA-CASE-GSC-11989-1] c74 N77-28932
Method of obtaining intensified image from developed photographic films and plates
[NASA-CASE-NPS-23461-1] c35 N79-10389

PHOTOGRAPHIC PROCESSING EQUIPMENT

Drying chamber for photographic sheet material
[NASA-CASE-GSC-11074-1] c14 N73-28489

PHOTOGRAPHIC RECORDING

Photographing surface flow patterns on wind tunnel test models
[NASA-CASE-XLA-01353] c14 N70-41366
Development of focused image holography with extended sources
[NASA-CASE-ERC-10019] c16 N71-15551
Recording and reconstructing focused image holograms
[NASA-CASE-ERC-10017] c16 N71-15567
Method and means for recording and reconstructing holograms without use of reference beam
[NASA-CASE-ERC-10020] c16 N71-26154
Multiple image storing system for obtaining holographic record on film of high speed projectile
[NASA-CASE-NPS-20596] c14 N72-17324
Phototropic composition of matter with sensitivity to ultraviolet light and usable for producing positive photographic images
[NASA-CASE-XGS-03736] c14 N72-22443
Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel
[NASA-CASE-LAR-11053-1] c25 N74-18551

PHOTOGRAPHS

System for forming a quadrifid image comprising angularly related fields of view of a three dimensional object
[NASA-CASE-NPO-14219-1] c35 N78-22348

SUBJECT INDEX

PHYSIOLOGICAL EFFECTS

PHOTOIONIZATION

- Multichannel photoionization chamber for measuring absorption, photoionization yield, and coefficients of gases
[NASA-CASE-ERC-10044-1] c14 N71-27090
- High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

PHOTOLYSIS

- Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580
- Solar photolysis of water
[NASA-CASE-NPO-14126-1] c44 N79-11470

PHOTOMAPPING

- Window defect planar mapping technique
[NASA-CASE-MSC-19442-1] c74 N77-10899

PHOTOMETERS

- Michelson interferometer with photodetector for optical direction sensing
[NASA-CASE-NPO-10320] c14 N71-17655
- Indicator device for monitoring charge of wet cell battery, using semiconductor light emitter and photodetector
[NASA-CASE-NPO-10194] c03 N71-20407
- Electro-optical detector for determining position of light source
[NASA-CASE-XNP-01059] c23 N71-21821
- Photometric flow meter with comparator reference means
[NASA-CASE-XGS-01331] c14 N71-22996
- Development of radiant energy sensor to detect the radiant energy wavelength bands from portions of radiating body
[NASA-CASE-ERC-10174] c14 N72-25409
- Characteristics of infrared photodetectors manufactured from semiconductor material irradiated by electron beam
[NASA-CASE-LAR-10728-1] c14 N73-12445
- Chromato-fluorographic drug detector --- device for detecting and recording fluorescent properties of materials
[NASA-CASE-ARC-10633-1] c25 N74-26947
- The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols
[NASA-CASE-GSC-12088-1] c74 N78-13874
- Magneto-optic detection system with noise cancellation
[NASA-CASE-NPO-11954-1] c35 N78-29421

PHOTOMICROGRAPHY

- Stereo photomicrography system with stereo microscope for viewing specimen at various magnifications
[NASA-CASE-LAR-10176-1] c14 N72-20380
- Device for displaying and recording angled views of samples to be viewed by microscope
[NASA-CASE-GSC-11690-1] c14 N73-28499
- Hand-held, lightweight, portable photomicroscope
[NASA-CASE-ARC-10468-1] c14 N73-33361

PHOTOMULTIPLIER TUBES

- Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-XNP-03914] c21 N71-10771
- Electronic divider and multiplier for analog electric signals
[NASA-CASE-XPR-05637] c09 N71-19480
- Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XNS-03478] c14 N71-21040
- Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328
- Scan oscilloscope for mapping surface sensitivity of photomultiplier tube
[NASA-CASE-LAR-10320-1] c09 N72-23172
- Design and development of light sensing device for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11201] c14 N72-27409
- Photomultiplier circuit including means for rapidly reducing the sensitivity thereof --- and protection from radiation damage
[NASA-CASE-ARC-10593-1] c33 N74-27682

PHOTON BEAMS

- Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255

PHOTONS

- Solar cell collector

- [NASA-CASE-LEW-12552-1] c44 N78-25527

PHOTOSENSITIVITY

- Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude
[NASA-CASE-XNP-00438] c21 N78-35089
- Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-MSC-10966] c14 N71-19568
- Scan oscilloscope for mapping surface sensitivity of photomultiplier tube
[NASA-CASE-LAR-10320-1] c09 N72-23172
- Holography utilizing surface plasmon resonances
[NASA-CASE-MPS-22040-1] c35 N74-26946
- Apparatus for calibrating an image dissector tube
[NASA-CASE-MPS-22208-1] c33 N75-26244

PHOTOTRANSISTORS

- Phototransistor imaging system with mosaic of phototransistors on semiconductor substrate
[NASA-CASE-MPS-20809] c23 N73-13660
- Phototransistor with base collector junction diode for integration into photo sensor arrays
[NASA-CASE-MPS-20407] c09 N73-19235

PHOTOTROPISM

- Phototropic composition of matter with sensitivity to ultraviolet light and usable for producing positive photographic images
[NASA-CASE-XGS-03736] c14 N72-22443

PHOTOVISCOELASTICITY

- Photographic method for measuring viscoelastic strain in solid propellants and other materials
[NASA-CASE-XNP-01153] c32 N71-17645

PHOTOVOLTAIC CELLS

- Sensor consisting of photocells mounted on pyramidal base for improved pointing accuracy of planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736
- Light sensitive digital aspect sensor for attitude control of earth satellites or space probes
[NASA-CASE-XGS-00359] c14 N70-34158
- Method of producing output voltage from photovoltaic cell using poly-N-vinyl carbazole complexed with iodine
[NASA-CASE-NPO-10373] c03 N71-18698
- Use of thin film light detector
[NASA-CASE-NPO-11432-2] c35 N74-15090
- Photovoltaic cell array
[NASA-CASE-MPS-22458-1] c44 N77-10635
- Method of construction of a multi-cell solar array
[NASA-CASE-MPS-23540-1] c44 N78-17468
- Double-sided solar cell package
[NASA-CASE-NPO-14199-1] c44 N78-22470
- An improved solar cell and method of forming the same
[NASA-CASE-NPO-14205-1] c44 N78-27541
- Method of fabricating a photovoltaic of a substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626
- Solar cells having integral collector grids
[NASA-CASE-LEW-12819-1] c44 N79-11467

PHOTOVOLTAIC EFFECT

- Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616
- Use of thin film light detector
[NASA-CASE-NPO-11432-2] c35 N74-15090

PHYSICAL EXERCISE

- Development of restraint system for securing personnel to ergometer while exercising under weightless conditions
[NASA-CASE-MPS-21046-1] c14 N73-27377
- Tilting table for testing human body in variety of positions while exercising on ergometer or other biomedical devices
[NASA-CASE-MPS-21010-1] c05 N73-30078
- Manual actuator --- for spacecraft exercising machines
[NASA-CASE-MPS-21481-1] c37 N74-18127
- Therapeutic hand exerciser
[NASA-CASE-LAR-11667-1] c52 N76-19785

PHYSICAL PROPERTIES

- Chemical and physical properties of synthetic polyurethane polymer prepared by reacting hydroxy carbonate with organic diisocyanate
[NASA-CASE-MPS-10512] c06 N73-30099

PHYSIOLOGICAL EFFECTS

- Restraint torso for increased mobility and

PHYSIOLOGICAL TESTS

SUBJECT INDEX

reduced physiological effects while wearing pressurized suits
[NASA-CASE-MSC-12397-1] c05 N72-25119

PHYSIOLOGICAL TESTS
Vibrophonocardiograph comprising low weight and small volume piezoelectric microphone with amplifier having high input impedance for high sensitivity and low frequency response
[NASA-CASE-XPR-07172] c05 N71-27234
Medical subject monitoring systems ---
multichannel monitoring systems
[NASA-CASE-MSC-14180-1] c52 N76-14757

PHYSIOLOGY
Piezoelectric transducer for monitoring sound waves of physiological origin
[NASA-CASE-XMS-05365] c14 N71-22993
Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-29891

PIERCING
Pressurized cell micrometeoroid detector
[NASA-CASE-XLA-00936] c14 N71-14996

PIEZOELECTRIC CRYSTALS
Miniature solid state, direction sensitive, stress transducer design with bonded semiconductive piezoresistive element for sensing residual stresses
[NASA-CASE-XNP-02983] c14 N71-21091
Ultra-stable oscillator with complementary transistors
[NASA-CASE-GSC-11513-1] c33 N74-20862
A phase insensitive ultrasonic transducer ---
annealing cadmium sulfide crystals
[NASA-CASE-LAR-12304-1] c71 N78-29871

PIEZOELECTRIC TRANSDUCERS
Piezoelectric transducer for detecting and measuring micrometeoroids
[NASA-CASE-XAC-01101] c14 N70-41957
Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
Piezoelectric transducer for monitoring sound waves of physiological origin
[NASA-CASE-XMS-05365] c14 N71-22993
Miniature piezoelectric semiconductor transducer with in situ stress coupling
[NASA-CASE-ERC-10087-2] c14 N72-31446
Length mode piezoelectric ultrasonic transducer for inspection of solid objects
[NASA-CASE-MSC-19672-1] c38 N79-14398

PIEZOELECTRICITY
Piezoelectric means for missile stage separation indication and stage initiation
[NASA-CASE-XLA-00791] c03 N70-39930
Piezoelectric pump for supplying fluid at high frequencies to gyroscope fluid suspension system
[NASA-CASE-XNP-05429] c26 N71-21824
Miniature electromechanical junction transducer operating on piezoelectric effect and utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334

PIEZORESISTIVE TRANSDUCERS
Miniature solid state, direction sensitive, stress transducer design with bonded semiconductive piezoresistive element for sensing residual stresses
[NASA-CASE-XNP-02983] c14 N71-21091
Solid state force measuring electromechanical transducers made of piezoresistive materials
[NASA-CASE-ERC-10088] c26 N71-25490

PIGMENTS
Binder stabilized zinc oxide pigmented coating for spacecraft thermal control
[NASA-CASE-XNP-07770-2] c18 N71-26772

PILOT ERROR
Spectrally balanced chromatic landing approach lighting system
[NASA-CASE-ABC-10990-1] c04 N77-12031

PILOT TRAINING
Controlled visibility device for simulating poor visibility conditions in training pilots in instrument landing and flight procedures
[NASA-CASE-XPR-04147] c11 N71-10748
Kinesthetic control simulator --- for pilot training
[NASA-CASE-LAR-10276-1] c09 N75-15662

PILOTS (PERSONNEL)
Pilot warning indicator system of intruder aircraft

[NASA-CASE-ERC-10226-1] c14 N73-16483

PINCH EFFECT
Toggle mechanism for pinching metal tubes
[NASA-CASE-GSC-12274-1] c37 N78-25428

PINS
Fatigue resistant shear pin with hollow shaft and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505
Blade vibration damping pins for turbomachinery
[NASA-CASE-XLE-00155] c28 N71-29154
Design of quick release locking pin for joining two or more load-carrying structural members
[NASA-CASE-MFS-18495] c15 N72-11385

PINTLES
Describing metal valve pintle with encapsulated elastomeric body
[NASA-CASE-MSC-12116-1] c15 N71-17648

PIPE FLOW
Flat-plate heat pipe
[NASA-CASE-GSC-11998-1] c34 N77-32413

PIPELINES
Flexible bellows joint shielding sleeve for propellant transfer pipelines
[NASA-CASE-XNP-01855] c15 N71-28937
Insulation for piping
[NASA-CASE-MSC-19523-1] c31 N76-16245

PIPES (TUBES)
Capacitance measuring device for determining flare accuracy on tapered tubes
[NASA-CASE-XKS-03495] c14 N69-39785
Low thermal loss piping arrangement for moving cryogenic media through double chamber structure
[NASA-CASE-XNP-08882] c15 N69-39935
Foldable conduit capable of springing back as self erecting structural member
[NASA-CASE-XLE-00620] c32 N70-41579
Mounting fixture for supporting thermobulb in pipeline
[NASA-CASE-NPO-10158] c33 N71-16356
Method and apparatus for shaping and joining large diameter metal tubes using magnetomotive forces
[NASA-CASE-XNP-05114] c15 N71-17650
Sealed separable connection for thin wall metal tube
[NASA-CASE-NPO-10064] c15 N71-17693
Electrical switching device comprising conductive liquid confined within square loop of deformable nonconductive tubing, also used for leveling
[NASA-CASE-NPO-10037] c09 N71-19610
Hand tool for forming dimples and nipples on end portion of tubes
[NASA-CASE-XMS-06876] c15 N71-21536
Nonconductive tube as feed system for plasma thruster
[NASA-CASE-XLE-02902] c25 N71-21694
Apparatus and method for spin forming tubular elbows with high strength, uniform thickness, and close tolerances
[NASA-CASE-XNP-01083] c15 N71-22723
Description of portable milling tool for milling tube or pipe ends to desired shape and thickness
[NASA-CASE-XNP-03511] c15 N71-22799
Gage for measuring internal angle of flare on end of tube
[NASA-CASE-XNP-04415] c14 N71-24693
Method and apparatus for portable high precision magnetomotive bulging, constricting, and joining of large diameter metal tubes
[NASA-CASE-XNP-05114-3] c15 N71-24865
Portable cutting machine for piping weld preparation
[NASA-CASE-XKS-07953] c15 N71-26134
Method and apparatus for precision sizing and joining of large diameter tubes by bulging or constricting overlapping ends
[NASA-CASE-XNP-05114-2] c15 N71-26148
Collapsible antenna boom and coaxial transmission line having inflatable inner tube
[NASA-CASE-MFS-20068] c07 N71-27191
Process for developing filament reinforced plastic tubes used in research and development programs
[NASA-CASE-LAR-10203-1] c15 N72-16330
Torsional disconnect device for releasably coupling distal ends of fluid conduits
[NASA-CASE-NPO-10704] c15 N72-20445

- Open type urine receptacle with tubular housing
[NASA-CASE-MSC-12324-1] c05 N72-22093
- Measuring method for cutaneous perception using
instrument with elongated tubular housing
[NASA-CASE-MSC-13609-1] c05 N72-25122
- Low mass truss structure with elongated
thin-walled tubular segments
[NASA-CASE-LAR-10546-1] c11 N72-25287
- Honeycomb panels of minimal surface, periodic
tubule layers
[NASA-CASE-ERC-10364] c18 N72-25540
- Honeycomb core structures of minimum surface
tubule sections
[NASA-CASE-ERC-10363] c18 N72-25541
- U shaped heated tube for distillation and
purification of liquid metals
[NASA-CASE-INP-08124-2] c06 N73-13129
- Cable guide and restraint device for reefing
tubes in uniform manner
[NASA-CASE-LAR-10129-1] c15 N73-25512
- Twisted wire or tube superconductor for filament
windings
[NASA-CASE-LRW-11015] c26 N73-32571
- Open tube guideway for high speed air cushioned
vehicles
[NASA-CASE-LAR-10256-1] c85 N74-34672
- Method for fabricating a mass spectrometer inlet
leak
[NASA-CASE-GSC-12077-1] c35 N77-24455
- PISTON ENGINES**
Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590
- PISTONS**
Automatically reciprocating, high pressure pump
for use in spacecraft cryogenic propellants
[NASA-CASE-INP-04731] c15 N71-24042
- Pumping and metering dual piston system and
monitor for reaction chamber constituents
[NASA-CASE-GSC-10218-1] c15 N72-21465
- Collapsible piston for hypervelocity gun
[NASA-CASE-MSC-13789-1] c11 N73-32152
- Airflow control system for supersonic inlets
[NASA-CASE-LRW-11188-1] c02 N74-20646
- Free-piston regenerative hot gas hydraulic engine
[NASA-CASE-LRW-12274-1] c37 N79-10426
- PITCH (INCLINATION)**
Reverse pitch fan with divided splitter
[NASA-CASE-LRW-12760-1] c07 N77-17059
- A pitch attitude stabilization system utilizing
engine pressure ratio feedback signals
[NASA-CASE-LAR-12562-1] c08 N79-20135
- PIVOTS**
Apparatus for measuring load on cable under
static or dynamic conditions comprising
pulleys pivoting structure against restraint
of tension strap
[NASA-CASE-INS-04545] c15 N71-22878
- PLANAR STRUCTURES**
Window defect planar mapping technique
[NASA-CASE-MSC-19442-1] c74 N77-10899
- Method and apparatus for preparing
multiconductor cable with flat conductors
[NASA-CASE-NFS-10946-1] c31 N79-21226
- PLANE WAVES**
Characteristics of microwave antenna with
conical reflectors to generate plane wave front
[NASA-CASE-NPO-11661] c07 N73-14130
- PLANETARY ATMOSPHERES**
Planetary atmospheric investigation using split
trajectory dual flyby node
[NASA-CASE-XAC-08494] c30 N71-15990
- Wind tunnel method for simulating flow fields
around blunt vehicles entering planetary
atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436
- Ablation sensor for measuring surface ablation
rate of material on vehicles entering earth's
atmosphere on entry into planetary atmospheres
[NASA-CASE-XLA-01791] c14 N71-22991
- PLANETARY GRAVITATION**
Lunar and planetary gravity simulator to test
vehicular response to landing
[NASA-CASE-XLA-00493] c11 N70-34786
- Table structure and rotating magnet system
simulating gravitational forces on spacecraft
and displaying trajectories between Earth,
Venus, and Mercury
[NASA-CASE-INP-00708] c14 N70-35394
- PLANETARY LANDING**
Multiple parachute system for landing control of
Apollo type spacecraft
[NASA-CASE-XLA-00898] c02 N70-36804
- Payload soft landing system using stowable gas bag
[NASA-CASE-XLA-09881] c31 N71-16085
- PLANETARY ORBITS**
Self-erectable space structures of flexible foam
for application in planetary orbits
[NASA-CASE-XLA-00686] c31 N70-34135
- Manned space station collapsible for launching
and self-erectable in orbit
[NASA-CASE-XLA-00678] c31 N70-34296
- PLANETARY RADIATION**
Attitude sensor with scanning mirrors for
detecting orientation of space vehicle with
respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
- PLANETARY SURFACES**
Spacecraft transponder and ground station radar
system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118
- PLANTS (BOTANY)**
Rotary plant growth accelerating apparatus ---
weightlessness
[NASA-CASE-ARC-10722-1] c51 N75-25503
- PLASMA ACCELERATION**
Increasing available power per unit area in ion
rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
- Coaxial, high density, hypervelocity plasma
generator and accelerator using electrodes
[NASA-CASE-NFS-20589] c25 N72-32688
- PLASMA ACCELERATORS**
Crossed-field plasma accelerator for laboratory
simulation of atmospheric reentry conditions
[NASA-CASE-XLA-00675] c25 N70-33267
- Continuous operation, single phased, induction
plasma accelerator producing supersonic speeds
[NASA-CASE-XLA-01354] c25 N70-36946
- Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562
- Direct current powered self repeating plasma
accelerator with interconnected annular and
linear discharge channels
[NASA-CASE-XLA-03103] c25 N71-21693
- Magnetically controlled plasma accelerator
capable of ignition in low density gaseous
environment
[NASA-CASE-XLA-00327] c25 N71-29184
- Two stage light gas-plasma projectile accelerator
[NASA-CASE-NFS-22287-1] c75 N76-14931
- PLASMA CONTROL**
Superconducting magnetic field trapping device
for producing magnetic field in air
[NASA-CASE-INP-01185] c26 N73-28710
- Self-energized plasma compressor --- for
compressing plasma discharged from coaxial
plasma generator
[NASA-CASE-NFS-22145-1] c75 N75-13625
- PLASMA CYLINDERS**
Plasma-fluidic hybrid display system combining
high brightness and memory characteristics
[NASA-CASE-ERC-10100] c09 N71-33519
- PLASMA DENSITY**
Apertured electrode focusing system for ion
sources with nonuniform plasma density
[NASA-CASE-INP-03332] c09 N71-10618
- Measurement of plasma temperature and density
using radiation absorption
[NASA-CASE-ARC-10598-1] c75 N74-30156
- PLASMA DIAGNOSTICS**
Plasma probes having guard ring and primary
sensor at same potential to prevent stray wall
current collection in ionized gases
[NASA-CASE-XLE-00690] c25 N69-39884
- Apparatus for measuring conductivity and
velocity of plasma with multiple sensing coils
positioned in plasma
[NASA-CASE-XAC-05695] c25 N71-16073
- Measurement of plasma temperature and density
using radiation absorption
[NASA-CASE-ARC-10598-1] c75 N74-30156
- PLASMA DYNAMICS**
Apparatus for measuring conductivity and
velocity of plasma with multiple sensing coils
positioned in plasma
[NASA-CASE-XAC-05695] c25 N71-16073

PLASMA ENGINES

SUBJECT INDEX

Self-energized plasma compressor --- for
compressing plasma discharged from coaxial
plasma generator
[NASA-CASE-MPS-22145-1] c75 N75-13625

PLASMA ENGINES
Nonconductive tube as feed system for plasma
thruster
[NASA-CASE-XLE-02902] c25 N71-21694

PLASMA GENERATORS
Apparatus for producing highly conductive, high
temperature electron plasma with homogenous
temperature and pressure distribution
[NASA-CASE-XLA-00147] c25 N70-34661
Crossed field MHD plasma generator-accelerator
[NASA-CASE-XLA-03374] c25 N71-15562
Coaxial, high density, hypervelocity plasma
generator and accelerator using electrodes
[NASA-CASE-MPS-20589] c25 N72-32688
Self-energized plasma compressor --- for
compressing plasma discharged from coaxial
plasma generator
[NASA-CASE-MPS-22145-1] c75 N75-13625
Self-energized plasma compressor
[NASA-CASE-MPS-22145-2] c75 N76-17951
Continuous plasma laser --- method and apparatus
for producing intense, coherent, monochromatic
light from low temperature plasma
[NASA-CASE-INP-04167-3] c36 N77-19416

PLASMA GUNS
Plasma spraying gun for forming diffusion bonded
metal or ceramic coatings on substrates
[NASA-CASE-XLE-01604-2] c15 N71-15610

PLASMA JETS
Method of preparing water purification membranes
--- polymerization of allyl amine as thin
films in plasma discharge
[NASA-CASE-ARC-10643-1] c25 N75-12087
Combination automatic-starting electrical plasma
torch and gas shutoff valve --- for satellite
attitude control
[NASA-CASE-XLE-10717] c37 N75-29426
Plasma cleaning device --- designed for high
vacuum environments
[NASA-CASE-MPS-22906-1] c75 N78-27913

PLASMA LAYERS
Electrostatic modulator for communicating
through plasma sheath formed around spacecraft
during reentry
[NASA-CASE-XLA-01400] c07 N70-41331
Method and apparatus for communicating through
ionized layer of gases surrounding spacecraft
during reentry into planetary atmospheres
[NASA-CASE-XLA-01127] c07 N70-41372
Reentry communication by injection of water
droplets into plasma layer surrounding space
vehicle
[NASA-CASE-XLA-01552] c07 N71-11284

PLASMA POTENTIALS
Method and apparatus for measuring potentials in
plasmas
[NASA-CASE-XLE-00821] c25 N71-15650
Method and apparatus for neutralizing potentials
induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429

PLASMA PROBES
Plasma probes having guard ring and primary
sensor at same potential to prevent stray wall
current collection in ionized gases
[NASA-CASE-XLE-00690] c25 N69-39884
Small plasma probe using tungsten wire collector
in tubular shield
[NASA-CASE-XLE-02578] c25 N71-20747

PLASMA PROPULSION
Method of making dished ion thruster grids
[NASA-CASE-LEW-11694-1] c20 N75-18310

PLASMA RADIATION
Development of method for measuring electron
density gradients of plasma sheath around
space vehicle during atmospheric entry
[NASA-CASE-XLA-06232] c25 N71-20563
Apparatus for producing monochromatic light from
continuous plasma source
[NASA-CASE-INP-04167-2] c25 N72-24753

PLASMA SHEATHS
Space environment simulation system for
measuring spacecraft electric field strength
in plasma sheath
[NASA-CASE-XLE-02038] c09 N71-16086

Development of method for measuring electron
density gradients of plasma sheath around
space vehicle during atmospheric entry
[NASA-CASE-XLA-06232] c25 N71-20563

PLASMA SPRAYING
Plasma or plasma spraying for molybdenum coating
of carbon or graphite surfaces to prevent
oxidative corrosion
[NASA-CASE-XLA-00302] c15 N71-16077

PLASMA TEMPERATURE
Measurement of plasma temperature and density
using radiation absorption
[NASA-CASE-ARC-10598-1] c75 N74-30156

PLASMA-ELECTROMAGNETIC INTERACTION
Plasma igniter for internal combustion engine
[NASA-CASE-NPO-13828-1] c37 N79-11405

PLASMA GUIDES
Support assembly for cryogenically coolable
low-noise choked waveguide
[NASA-CASE-NPO-14253-1] c31 N79-10246

PLASMAS (PHYSICS)
Apparatus for measuring conductivity and
velocity of plasma with multiple sensing coils
positioned in plasma
[NASA-CASE-XAC-05695] c25 N71-16073

PLASTIC COATINGS
Process permitting application of synthetic
resin coating to irregular-shaped objects at
ambient temperature
[NASA-CASE-INP-06508] c18 N69-39895
Development and characteristics of system for
skin packaging articles using thermoplastic
film heating and vacuum operated equipment
[NASA-CASE-MPS-20855] c15 N73-27405
Silicon nitride coated, plastic covered solar cell
[NASA-CASE-LEW-11496-1] c44 N77-14580
Oxygen post-treatment of plastic surface coated
with plasma polymerized silicon-containing
monomers
[NASA-CASE-ARC-10915-2] c27 N79-18052

PLASTIC DEFORMATION
Process for analysis of strain field of
structures subjected to large deformations
involving low modulus substrate with thin
coating
[NASA-CASE-LAR-10765-1] c32 N73-20740

PLASTIC TAPES
Development of flexible thermocouple in form of
tape for adaptation to special temperature
measuring conditions
[NASA-CASE-LEW-11072-1] c14 N73-24472

PLASTICIZERS
Inorganic-organic separators for alkaline
batteries
[NASA-CASE-LEW-12649-1] c44 N78-25530

PLASTICS
Hot forming of plastic sheets
[NASA-CASE-IMS-05516] c15 N71-17803
Technique for making foldable, inflatable,
plastic honeycomb core panels for use in
building and bridge structures, light and
radio wave reflectors, and spacecraft
[NASA-CASE-XLA-03492] c15 N71-22713
Electrode sealing and insulation for fuel cells
containing caustic liquid electrolytes using
powdered plastic and metal
[NASA-CASE-IMS-01625] c15 N71-23022
Dielectric apparatus for heating, fusing, and
hardening of organic matrix to form plastic
material into shaped product
[NASA-CASE-LAR-10121-1] c15 N71-26721
Plastic sphere for radar tracking and calibration
[NASA-CASE-XLA-11154] c07 N72-21117
Molding apparatus --- for thermosetting plastic
compositions
[NASA-CASE-LAR-10489-2] c31 N74-32920
Ultraviolet and thermally stable polymer
compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315
Abrasion resistant coatings for plastic surfaces
[NASA-CASE-ARC-10915-3] c24 N77-24200

PLATES (STRUCTURAL MEMBERS)
Foil seal between parts moving relative to each
other
[NASA-CASE-XLE-05130] c15 N69-21362
Fifth wheel
[NASA-CASE-FRC-10081-1] c37 N77-14477
Microwave dichroic plate
[NASA-CASE-GSC-12171-1] c33 N78-18313

SUBJECT INDEX

POLARIZED ELECTROMAGNETIC RADIATION

- A floating nut retention system
[NASA-CASE-MSC-16938-1] c37 N78-32431
- PLATING**
Selective plating of etched circuits without removing previous plating
[NASA-CASE-XGS-03120] c15 N71-24047
Metal plating process employing spraying of metallic power/peening particle mixture
[NASA-CASE-GSC-11163-1] c15 N73-32360
Scanning nozzle plating system --- for etching or plating metals on substrates without masking
[NASA-CASE-NPO-11758-1] c31 N74-23065
- PLATINUM**
Electrolytic cell structure
[NASA-CASE-LAR-11042-1] c33 N75-27252
Platinum resistance thermometer circuit
[NASA-CASE-MSC-12327-1] c35 N77-27368
- PLAYBACKS**
Method of and means for testing a tape record/playback system
[NASA-CASE-MFS-22671-2] c35 N77-17426
Thermomagnetic recording and magnetic-optic playback system
[NASA-CASE-NPO-10872-1] c35 N79-16246
- PLENUM CHAMBERS**
Platform with several ground effect pads and plenum chambers
[NASA-CASE-MFS-14685] c31 N71-15689
Development of filter apparatus for gas separation and characteristics of filter cell support frame for improved operation
[NASA-CASE-MSC-12297] c14 N72-23457
- PLETHYSMOGRAPHY**
Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525
- PLOTTERS**
Plotter device for automatically drawing equipotential lines on sheet of resistance paper
[NASA-CASE-NPO-11134] c09 N72-21246
- PLOTTING**
Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421
A system for plotting subsoil structure and method therefor
[NASA-CASE-NPO-14191-1] c46 N79-20555
- PLUG NOZZLES**
Cascade plug nozzle --- for jet noise reduction
[NASA-CASE-LAR-11674-1] c07 N76-18117
- PLUGS**
Rocket chamber leak test fixture using tubular plug
[NASA-CASE-YPR-09479] c14 N69-27503
Fatigue resistant shear pin with hollow shaft and two plugs
[NASA-CASE-XLA-09122] c15 N69-27505
Control of gas flow from pressurized vessel by thermal expansion of metal plug
[NASA-CASE-NPO-10298] c12 N71-17661
Heated porous plug microthruster for spacecraft reaction jet controlled systems such as fuel flow regulation, propellant disassociation, and heat transfer augmentation
[NASA-CASE-GSC-10640-1] c28 N72-18766
- PNEUMATIC CONTROL**
Pneumatic system for cyclic control of fluid flow in pneumatic device
[NASA-CASE-XMS-04843] c03 N69-21469
Pneumatic control of telescopic mirror support system
[NASA-CASE-XLA-03271] c11 N69-24321
Actuator using compressed gas as driving force to control valve handling large liquid flows
[NASA-CASE-XHQ-01208] c15 N70-35409
Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
Pneumatic foot pedal operated fluidic exercising device
[NASA-CASE-MSC-11561-1] c05 N73-32014
Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465
Pneumatic inflatable end effector
[NASA-CASE-MFS-23696-1] c54 N78-32724
- PNEUMATIC EQUIPMENT**
Development and characteristics of high pressure control valve
[NASA-CASE-MSC-11010] c15 N71-19485
- Pneumatic cantilever beams and platform for space erectable structure
[NASA-CASE-XLA-01731] c32 N71-21045
Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention
[NASA-CASE-XMS-01905] c12 N71-21089
Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-XHP-06515] c14 N71-23227
Pneumatic servoamplifier for controlling flow regulation
[NASA-CASE-MSC-12121-1] c15 N71-27147
Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
[NASA-CASE-MSC-12393-1] c02 N73-26006
Airlock
[NASA-CASE-MFS-20922-1] c18 N74-22136
Servo valve
[NASA-CASE-LAR-11643-1] c37 N75-13268
Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465
Pneumatic inflatable end effector
[NASA-CASE-MFS-23696-1] c54 N78-32724
- POINT SOURCES**
Electronic background suppression field scanning sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N69-39980
X ray collimating structure for focusing radiation directly onto detector
[NASA-CASE-XHQ-04106] c14 N70-40240
- POINTING CONTROL SYSTEMS**
Development of reflector system for application to line-of-sight pointing and tracking telescopes
[NASA-CASE-NPO-10468] c23 N71-33229
Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-1] c19 N76-18227
All sky pointing attitude control system
[NASA-CASE-ARC-10716-1] c35 N77-20399
Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-2] c37 N78-27424
- POLAR ORBITS**
Spin phase synchronization of cartwheel satellite in polar orbit
[NASA-CASE-XGS-05579] c31 N71-15676
- POLARIMETERS**
Automatic polarimeter capable of measuring transient birefringence changes in electro-optic materials
[NASA-CASE-XHP-08883] c23 N71-16101
Two beam interferometer-polarimeter
[NASA-CASE-NPO-11239] c14 N73-12446
Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434
Method of forming a sharp edge on an optical device --- beam splitters for Solar Maximum Missions spectropolarimeter
[NASA-CASE-GSC-12348-1] c74 N78-29902
- POLARITY**
Converting output of positive dc voltage source to negative dc voltage across load with common reference point
[NASA-CASE-XHP-08217] c03 N71-23239
Peak polarity selector for monitoring waveforms
[NASA-CASE-FRC-10010] c10 N71-24862
Precision full wave rectifier circuit for rectifying incoming electrical signals having positive or negative polarity with only positive output signals
[NASA-CASE-ARC-10101-1] c09 N71-33109
- POLARIZATION (CHARGE SEPARATION)**
Charge injection method and apparatus of producing large area electrets
[NASA-CASE-MFS-23186-2] c24 N78-25137
- POLARIZATION (WAVES)**
System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982
- POLARIZATION CHARACTERISTICS**
Multifrequency broadband horn antenna
[NASA-CASE-NPO-14588-1] c32 N79-17067
- POLARIZED ELECTROMAGNETIC RADIATION**
Device for improving efficiency of parabolic

POLARIZED LIGHT

horn antenna system for linearly polarized signals
[NASA-CASE-INP-00611] c09 N70-35219
Device for improving efficiency of parabolic reflector horn for linearly or circularly polarized waves
[NASA-CASE-INP-00540] c09 N70-35382

POLARIZED LIGHT

Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053

POLARIZERS

Partial polarizer filter
[NASA-CASE-GSC-12225-1] c74 N79-14891

POLISHING

Conforming polisher for aspheric surfaces of revolution with inflatable tube
[NASA-CASE-IGS-02884] c15 N71-22705
Method of forming a sharp edge on an optical device --- beam splitters for Solar Maximum Missions spectropolarimeter
[NASA-CASE-GSC-12348-1] c74 N78-29902

POLLUTION CONTROL

System for minimizing internal combustion engine pollution emission
[NASA-CASE-NPO-13402-1] c37 N76-18457
Combustion engine --- for air pollution control
[NASA-CASE-NPO-13671-1] c37 N77-31497
Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122

POLLUTION MONITORING

Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585
Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656
Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742
Method for detecting pollutants --- through chemical reactions and heat treatment
[NASA-CASE-LAR-11405-1] c45 N76-31714
Method and apparatus for continuous measurement of bacterial content of aqueous samples
[NASA-CASE-MSC-16779-1] c51 N78-22586
Water quality monitoring system
[NASA-CASE-MSC-16778-1] c51 N78-22589

POLYAMIDE RESINS

Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-MSC-16074-1] c27 N77-14262

POLYBENZIMIDAZOLE

Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N78-31232

POLYBUTADIENE

Synthesis of polyfluorobutadiene by polymerization of perfluorobutadiene with diisopropyl peroxydicarbonate
[NASA-CASE-NPO-10863] c06 N70-11251
Low pressure perfluorobutadiene polymerization with peroxide catalysts
[NASA-CASE-NPO-10447] c06 N70-11252
Inhibited solid propellant composition containing beryllium hydride
[NASA-CASE-NPO-10866-1] c28 N79-14228

POLYCARBONATES

Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190

POLYCRYSTALS

Fabrication of polycrystalline solar cells on low-cost substrates
[NASA-CASE-GSC-12022-1] c44 N76-28635
Process for utilizing low-cost graphite substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609
Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLB-02545-1] c76 N79-21910

POLYESTERS

Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917
Flexible formulated plastic separators for alkaline batteries

SUBJECT INDEX

[NASA-CASE-LEW-12363-1] c44 N76-19552

POLYETHER RESINS

Preparation of stable polyurethane polymer by reacting polymer with diisocyanate
[NASA-CASE-MPS-10506] c06 N73-30100
Preparation of fluorohydroxy ethers by reacting fluoroalkylene oxides with alkali salt of polyfluoroalkylene diol
[NASA-CASE-MPS-10507] c06 N73-30101
Preparation of fluorinated polyethers from 2-hydro-perhaloisopropyl alcohols
[NASA-CASE-MPS-11492] c06 N73-30102
Flexible formulated plastic separators for alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552

POLYIMIDE RESINS

Polyimide adhesives
[NASA-CASE-LAR-11397-1] c27 N77-29263
Polyimide adhesives
[NASA-CASE-LAR-12181-1] c27 N78-17205
Mixed dianines for lower melting addition polyimide preparation and utilization
[NASA-CASE-LAR-12054-1] c27 N78-17218
Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety
[NASA-CASE-ARC-11040-2] c24 N78-27184

POLYIMIDES

Stable polyimide synthesis from mixtures of monomeric diamines and polycarboxylic acid esters
[NASA-CASE-LEW-11325-1] c06 N73-27980
Polyimide foam for the thermal insulation and fire protection
[NASA-CASE-ARC-10464-1] c27 N74-12812
Aromatic polyimide preparation --- with low softening temperatures
[NASA-CASE-LAR-11372-1] c27 N74-19772
Reinforced structural plastics
[NASA-CASE-LEW-10199-1] c27 N74-23125
Polyimides of ether-linked aryl tetracarboxylic dianhydrides
[NASA-CASE-MPS-22355-1] c23 N76-15268
Crystalline polyimides
[NASA-CASE-LAR-12099-1] c27 N78-24360
Process for preparing thermoplastic aromatic polyimides
[NASA-CASE-LAR-11828-1] c27 N78-32261
Ambient cure polyimide foams --- thermal resistant foams
[NASA-CASE-ARC-11170-1] c27 N79-11215
Mixed dianines for lower melting addition polyimide preparation and utilization
[NASA-CASE-LAR-12054-2] c27 N79-19160

POLYISOBUTYLENE

Chemical process for production of polyisobutylene compounds and application as solid rocket propellant binder
[NASA-CASE-NPO-10893] c27 N73-22710

POLYMER CHEMISTRY

New trifunctional alcohol derived from trimer acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244
Synthesis of siloxane containing epoxy polymers with low dielectric properties
[NASA-CASE-MPS-13994-1] c06 N71-11240
Apparatus for determining volatile condensable material present in polymeric products
[NASA-CASE-INP-09699] c06 N71-24607
Polyimide adhesives
[NASA-CASE-LAR-11397-1] c27 N75-29263
Trimerization of aromatic nitriles
[NASA-CASE-LEW-12053-1] c27 N78-15276
Polyimide adhesives
[NASA-CASE-LAR-12181-1] c27 N78-17205
Catalysts for imide formation from aromatic isocyanates and aromatic dianhydrides
[NASA-CASE-ARC-11107-1] c23 N78-22156
In situ self cross-linking of polyvinyl alcohol battery separators
[NASA-CASE-LEW-12972-1] c23 N78-22157
Infusible silazane polymer and process for producing same --- protective coatings
[NASA-CASE-INP-02526-1] c27 N79-21190
Fluorine-containing polyformals
[NASA-CASE-INP-06900-1] c27 N79-21191

POLYMER MATRIX COMPOSITE MATERIALS

Intumescent-ablator coatings using endothermic fillers

SUBJECT INDEX

POLYTETRAFLUOROETHYLENE

- [NASA-CASE-ARC-11043-1] c24 N78-27180
POLYMERIC FILMS
 Ethylene oxide sterilization and encapsulating process for sterile preservation of instruments and solid propellants
 [NASA-CASE-XNP-09763] c14 N71-20461
 Hydraulic apparatus for casting and molding of liquid polymers
 [NASA-CASE-XNP-07659] c06 N71-22975
 Thermoelectric radiometer using polymer film as capacitor
 [NASA-CASE-ARC-10138-1] c14 N72-24477
 Development and characteristics of system for skin packaging articles using thermoplastic film heating and vacuum operated equipment
 [NASA-CASE-NPS-20855] c15 N73-27405
 Covered silicon solar cells and method of manufacture --- with polymeric films
 [NASA-CASE-LEW-11065-2] c44 N76-14600
 A reverse osmosis membrane of high urea rejection properties
 [NASA-CASE-ARC-10980-1] c27 N77-18265
 Strong thin membrane structure
 [NASA-CASE-NPO-14021-1] c27 N77-32313
 Cross-linked polyvinyl alcohol and method of making same --- separator for alkaline batteries
 [NASA-CASE-LEW-13101-1] c25 N79-14173
 In-situ cross-linking of polyvinyl alcohol --- polymeric films for separators in alkaline batteries
 [NASA-CASE-LEW-13135-1] c25 N79-14174
 Preparation of dielectric coating of variable dielectric constant by plasma polymerization
 [NASA-CASE-ARC-10892-2] c27 N79-14214
 Photomechanical transducer --- using thin strips of photoabsorptive metal or polymeric film with strain gages
 [NASA-CASE-NPO-14363-1] c76 N79-14908
 Surface finishing --- adhesive bonding of plastic film to metal airfoil surfaces
 [NASA-CASE-MSC-12631-3] c26 N79-21183
POLYMERIZATION
 Synthesis of polyfluorobutadiene by polymerization of perfluorobutadiene with diisopropyl peroxydicarbonate
 [NASA-CASE-NPO-10863] c06 N70-11251
 Low pressure perfluorobutadiene polymerization with peroxide catalysts
 [NASA-CASE-NPO-10447] c06 N70-11252
 Process for interfacial polymerization of pyromellitic dianhydride and tetraamino benzene
 [NASA-CASE-XLA-03104] c06 N71-11235
 Synthesis and chemical properties of imidazopyrrolone/imide copolymers
 [NASA-CASE-XLA-08802] c06 N71-11238
 Direct synthesis of polymeric schiff bases from two amines and two aldehydes
 [NASA-CASE-XNP-08655] c06 N71-11239
 Synthesis of azine polymers for heat shields by azine-aromatic aldehyde reaction
 [NASA-CASE-XNP-08656] c06 N71-11242
 Synthesis of schiff bases for heat shields by acetal amine reactions
 [NASA-CASE-XNP-08652] c06 N71-11243
 Preparation of elastomeric diamine silazane polymers
 [NASA-CASE-XNP-04133] c06 N71-20717
 Reaction of polyperfluoropolyenes with fluorine to produce saturated polymer chain or create reactive sites on chain
 [NASA-CASE-NPO-10862] c06 N72-22107
 Silphenylenesiloxane polymer with in-chain perfluoroalkyl groups
 [NASA-CASE-NPS-20979] c06 N72-25151
 Polymerization of perfluorobutadiene
 [NASA-CASE-NPO-10863-2] c06 N72-25152
 Preparation of fluorohydroxy ethers by reacting fluoroalkylene oxides with alkali salt of polyfluoroalkylene diol
 [NASA-CASE-NPS-10507] c06 N73-30101
 Preparation of fluorinated polyethers from 2-hydroxy perhaloisopropyl alcohols
 [NASA-CASE-NPS-11492] c06 N73-30102
 Method of preparing water purification membranes --- polymerization of allyl amine as thin films in plasma discharge
 [NASA-CASE-ARC-10643-1] c25 N75-12087
 Utilization of oxygen difluoride for syntheses of fluoropolymers
 [NASA-CASE-NPO-12061-1] c27 N76-16228
 Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby
 [NASA-CASE-LEW-12053-2] c23 N77-32244
 Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof
 [NASA-CASE-NPO-10557] c27 N78-17214
 Mixed diamines for lower melting addition polyimide preparation and utilization
 [NASA-CASE-LAR-12054-1] c27 N78-17218
 Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
 [NASA-CASE-ARC-11008-1] c27 N78-31232
 Ambient cure polyimide foams --- thermal resistant foams
 [NASA-CASE-ARC-11170-1] c27 N79-11215
POLYMERS
 Preparation of ordered poly/arylenesiloxane/polymers
 [NASA-CASE-XNP-10753] c06 N71-11237
 Synthesis of aromatic diamines and dialdehyde polymers using Schiff base
 [NASA-CASE-XNP-03074] c06 N71-24740
 Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
 [NASA-CASE-XLA-08254] c14 N71-26161
 Infusible polymer production from reaction of polyfunctional epoxy resins with polyfunctional aziridine compounds
 [NASA-CASE-NPO-10701] c06 N71-28620
 Development of solid state polymer coating for obtaining thermal balance in spacecraft components
 [NASA-CASE-XLA-01745] c33 N71-28903
 Mercaptan terminated polymer containing sulfonic acid salts of nitrosubstituted aromatic amines for heat and moisture resistant coatings
 [NASA-CASE-ARC-10325] c06 N72-25147
 Solid propellant containing hydrazinium nitroformate oxidizer and polymeric hydrocarbon binder
 [NASA-CASE-NPO-12015] c27 N73-16764
 Chemical process for production of polyisobutylene compounds and application as solid rocket propellant binder
 [NASA-CASE-NPO-10893] c27 N73-22710
 Utilization of lithium p-lithiophenoxide to prepare star polymers
 [NASA-CASE-NPO-10998-1] c06 N73-32029
 Ultraviolet and thermally stable polymer compositions
 [NASA-CASE-ARC-10592-1] c27 N74-21156
 Ultraviolet and thermally stable polymer compositions
 [NASA-CASE-ARC-10592-2] c27 N76-32315
 Oil and fat absorbing polymers
 [NASA-CASE-NPO-11609-2] c27 N77-31308
 Heat resistant polymers of oxidized styrylphosphine
 [NASA-CASE-MSC-1490] c27 N78-25216
 Chelate-modified polymers for atmospheric gas chromatography
 [NASA-CASE-ARC-11154-1] c27 N78-27275
 Modification of the electrical and optical properties of polymers --- ion irradiation
 [NASA-CASE-LEW-13027-1] c27 N79-11216
POLYMETHYL METHACRYLATE
 Durable antistatic coating for polymethylmethacrylate
 [NASA-CASE-NPO-13867-1] c27 N78-14164
 Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses
 [NASA-CASE-ARC-11039-1] c74 N78-32854
POLYSACCHARIDES
 Aldehyde-containing urea-absorbing polysaccharides
 [NASA-CASE-NPO-13620-1] c27 N77-30236
POLYTETRAFLUOROETHYLENE
 Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients
 [NASA-CASE-XLA-01262] c15 N71-21404
 Polymeric electrolytic hygrometer
 [NASA-CASE-NPO-13948-1] c35 N77-28470

POLYURETHANE FOAM

SUBJECT INDEX

POLYURETHANE FOAM

Self-erectable space structures of flexible foam for application in planetary orbits
[NASA-CASE-XIA-00686] c31 N70-34135

Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739

Lightweight fire resistant plastic foam for thermal protection of reentry vehicles and aircraft structures
[NASA-CASE-ARC-10180-1] c28 N72-20767

Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices
[NASA-CASE-ARC-10180-1] c27 N74-12814

Fiber modified polyurethane foam for ballistic protection
[NASA-CASE-ARC-10714-1] c27 N76-15310

Mixing insert for foam dispensing apparatus
[NASA-CASE-MPS-20607-1] c37 N76-19436

POLYURETHANE RESINS

Chemical synthesis of hydroxy terminated perfluoro ethers as intermediates for highly fluorinated polyurethane resins
[NASA-CASE-NPO-10768] c06 N71-27254

Formation of polyurethane resins from hydroxy terminated perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144

Fluorinated polyurethanes produced by reacting hydroxy terminated perfluoro polyether with diisocyanate
[NASA-CASE-NPO-10767-2] c06 N72-27151

Chemical and physical properties of synthetic polyurethane polymer prepared by reacting hydroxy carbonate with organic diisocyanate
[NASA-CASE-MPS-10512] c06 N73-30099

Preparation of stable polyurethane polymer by reacting polymer with diisocyanate
[NASA-CASE-MPS-10506] c06 N73-30100

Preparation of polyurethane polymer by reacting hydroxy polyformal with organic diisocyanate
[NASA-CASE-MPS-10509] c06 N73-30103

Chemical and elastic properties of fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076

Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213

POLYVINYL ALCOHOL

In situ self cross-linking of polyvinyl alcohol battery separators
[NASA-CASE-LEW-12972-1] c23 N78-22157

Method of cross-linking polyvinyl alcohol and other water soluble resins
[NASA-CASE-LEW-13103-1] c25 N79-14172

Cross-linked polyvinyl alcohol and method of making same --- separator for alkaline batteries
[NASA-CASE-LEW-13101-1] c25 N79-14173

In-situ cross-linking of polyvinyl alcohol --- polymeric films for separators in alkaline batteries
[NASA-CASE-LEW-13135-1] c25 N79-14174

PORCELAIN

Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-MPS-22324-1] c27 N75-27160

POROSITY

Process for making sheets with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c37 N75-26371

POROUS MATERIALS

Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders
[NASA-CASE-LEW-10393-1] c17 N71-15468

Multilayer porous refractory metal ionizer design with thick, porous, large-grain substrates and thin, porous micron-grain substrates
[NASA-CASE-XNP-04338] c17 N71-23046

Lubrication for bearings by capillary action from oil reservoir of porous material
[NASA-CASE-XNP-03972] c15 N71-23048

Method and photodetector device for locating abnormal voids in low density materials
[NASA-CASE-MPS-20044] c14 N71-28993

Production method for manufacturing porous tungsten bodies from tungsten powder particles
[NASA-CASE-XNP-04339] c17 N71-29137

Compressible electrolyte saturated sponge electrode for biomedical applications
[NASA-CASE-HSC-13648] c05 N72-27103

Porous electrode for use in electrochemical cells
[NASA-CASE-GSC-11368-1] c09 N73-32108

Method of making porous conductive supports for electrodes --- by electroforming and stacking nickel foils
[NASA-CASE-GSC-11367-1] c44 N74-19692

Fluid valve assembly
[NASA-CASE-HSC-12731-1] c37 N78-25426

Heat exchanger and method of making --- bonding rocket chambers with a porous metal matrix
[NASA-CASE-LEW-12441-1] c34 N79-13289

A heat exchanger and method of making --- rocket lining
[NASA-CASE-LEW-12441-2] c34 N79-21313

POROUS PLATES

Method for producing porous tungsten plates for ionizing cesium compounds for propulsion of ion engines
[NASA-CASE-XLE-00455] c28 N70-38197

PORPHYRINS

Method and apparatus for eliminating luminol interference material
[NASA-CASE-HSC-16260-1] c51 N78-18674

PORTABLE EQUIPMENT

Portable electron beam welding chamber
[NASA-CASE-LEW-11531] c15 N71-14932

Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-IMP-03212] c15 N71-22721

Portable cutting machine for piping weld preparation
[NASA-CASE-XKS-07953] c15 N71-26134

Method and apparatus for precision sizing and joining of large diameter tubes by bulging or constricting overlapping ends
[NASA-CASE-IMP-05114-2] c15 N71-26148

Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654

Automatic controlled drive mechanism for portable boring bar
[NASA-CASE-XIA-03661] c15 N71-33518

One hand backpack harness
[NASA-CASE-LAR-10102-1] c05 N72-23085

Portable tester for monitoring bacterial contamination by adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N72-25413

Portable penetrometer for analyzing soil characteristics
[NASA-CASE-MPS-20774] c14 N73-19420

Hand-held, lightweight, portable photomicroscope
[NASA-CASE-ARC-10468-1] c14 N73-33361

System for enhancing tool-exchange capabilities of a portable wrench
[NASA-CASE-MPS-22283-1] c37 N75-33395

Method of peening and portable peening gun
[NASA-CASE-MPS-23047-1] c37 N76-18454

A portable device particularly suited for use in starting air-start units for aircraft
[NASA-CASE-FRC-10113-1] c09 N78-19166

Portable heatable container
[NASA-CASE-NPO-14237-1] c37 N78-24554

Portable electrophoresis apparatus using minimum electrolyte
[NASA-CASE-NPO-13274-1] c25 N79-10163

Portable appliance security apparatus
[NASA-CASE-GSC-12399-1] c33 N79-13261

PORTABLE LIFE SUPPORT SYSTEMS

Portable breathing system
[NASA-CASE-MSC-16182-1] c54 N77-21847

PORTS (OPENINGS)

Sealing evacuation port and evacuating vacuum container such as space jackets
[NASA-CASE-IMP-03290] c15 N71-23256

POSITION (LOCATION)

Position locating system for remote aircraft using voice communication and digital signals
[NASA-CASE-GSC-10087-2] c21 N71-13958

Development of telemetry system for position location and data acquisition
[NASA-CASE-GSC-10083-1] c30 N71-16090

SUBJECT INDEX

POWDER METALLURGY

- Automatic braking device for rapidly transferring humans or materials from elevated location
[NASA-CASE-IKS-07814] c15 N71-27067
- System and method for position locating for air traffic control involving supersonic transports
[NASA-CASE-GSC-10087-3] c07 N72-12080
- Location identification system with ground based transmitter and aircraft borne receiver/decoder
[NASA-CASE-ERC-10324] c07 N72-25173
- System for detecting impact position of cosmic dust on detector surface
[NASA-CASE-GSC-11291-1] c25 N72-33696
- Collimator for analyzing spatial location of near and distant sources of radiation
[NASA-CASE-MFS-20546-2] c14 N73-30389
- Measuring probe position recorder
[NASA-CASE-LAR-10806-1] c35 N74-32877
- Vehicle locating system utilizing AM broadcasting station carriers
[NASA-CASE-NPO-13217-1] c32 N75-26194
- Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331
- Aircraft-mounted crash-activated transmitter device
[NASA-CASE-MFS-16609-3] c03 N76-32140
- Twin-capacitive shaft angle encoder with analog output signal
[NASA-CASE-ARC-10897-1] c33 N77-31404
- POSITION INDICATORS**
 - Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432
 - Characteristics and performance of electrical system to determine angular rotation
[NASA-CASE-XMP-00447] c14 N70-33179
 - Magnetic element position sensing device, using misaligned electromagnets
[NASA-CASE-XGS-07514] c23 N71-16099
 - Describing angular position and velocity sensing apparatus
[NASA-CASE-XGS-05680] c14 N71-17585
 - Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
 - Doppler compensated communication system for locating supersonic transport position
[NASA-CASE-GSC-10087-4] c07 N73-20174
 - Meteoroid impact position locator aid for manned space station
[NASA-CASE-LAR-10629-1] c35 N75-33367
 - Position determination systems --- using orbital antenna scan of celestial bodies
[NASA-CASE-MSC-12593-1] c17 N76-21250
 - Solar cell angular position transducer
[NASA-CASE-LAR-11999-1] c35 N78-18394
- POSITIONING**
 - Centering device with ultrafine adjustment for use with roundness measuring apparatus
[NASA-CASE-XMP-00480] c14 N70-39898
 - Portable device for aligning surfaces of two adjacent wall or sheet sections for joining at point of junction
[NASA-CASE-XMP-01452] c15 N70-41371
 - Electro-optical/computer system for aligning large structural members and maintaining correct position
[NASA-CASE-XMP-02029] c14 N70-41955
 - Manual control mechanism for adjusting control rod to null position
[NASA-CASE-XLA-01808] c15 N71-20740
 - Rotating raster generator
[NASA-CASE-FRC-10071-1] c32 N74-20813
- POSITIONING DEVICES (MACHINERY)**
 - Swivel support for gas bearing for position adjustment between ball and supporting cup
[NASA-CASE-XMP-07808] c15 N71-23812
 - Caterpillar micropositioner for positioning machine tools adjacent to workpiece
[NASA-CASE-GSC-10780-1] c14 N72-16283
 - Positioning mechanism for converting translatory motion into rotary motion
[NASA-CASE-NPO-10679] c15 N72-21462
 - Design and development of test stand system for supporting test items in vacuum chamber
[NASA-CASE-MFS-21362] c11 N73-20267
- Method and apparatus for optically monitoring the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304
- Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014
- Reference apparatus for medical ultrasonic transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760
- Controlled caging and uncaging mechanism
[NASA-CASE-GSC-11063-1] c37 N77-27400
- POSITIVE FEEDBACK**
 - Complementary regenerative transistorized switch circuit employing positive and negative feedback
[NASA-CASE-XGS-02751] c09 N71-23015
- POTABLE WATER**
 - Potable water reclamation from human wastes in zero-G environment
[NASA-CASE-XLA-03213] c05 N71-11207
 - Utilization of solar radiation by solar still for converting salt and brackish water into potable water
[NASA-CASE-XMS-04533] c15 N71-23086
 - Chlorine generator for purifying water in life support systems of manned spacecraft
[NASA-CASE-XLA-08913] c14 N71-28933
 - Potable water dispenser
[NASA-CASE-MFS-21115-1] c54 N74-12779
 - Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MFS-21163-1] c54 N74-17853
 - Iodine generator for reclaimed water purification
[NASA-CASE-MSC-14632-1] c54 N78-14784
- POTASSIUM SILICATES**
 - Fireproof potassium silicate coating composition, insoluble in water after application
[NASA-CASE-GSC-10072] c18 N71-14014
- POTENTIOMETERS**
 - Angle detector
[NASA-CASE-ARC-11036-1] c35 N78-32395
- POTENTIOMETERS (INSTRUMENTS)**
 - Two axis flight controller with potentiometer control shafts directly coupled to rotatable ball members
[NASA-CASE-XPR-04104] c03 N70-42073
 - Device for controlling rotary potentiometer mounted on aircraft steering wheel or aileron control
[NASA-CASE-IAC-10019] c15 N71-23809
 - Mechanical function generators with potentiometer as sensing element
[NASA-CASE-XAC-00001] c15 N71-28952
- POTTING COMPOUNDS**
 - Removable potting compound for instrument shock protection
[NASA-CASE-XLA-00482] c15 N70-36409
 - Flexible, repairable, pottable composition for encapsulating electric connectors
[NASA-CASE-XGS-05180] c18 N71-25881
 - Thermally conductive polymer for potting electrical components
[NASA-CASE-GSC-11304-1] c06 N72-21105
- POWDER (PARTICLES)**
 - A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-MFS-23904-1] c20 N79-13077
- POWDER METALLURGY**
 - Freeze casting of metal ceramic and refractory compound powders into plastic slips
[NASA-CASE-XLE-00106] c15 N71-16076
 - Production method for manufacturing porous tungsten bodies from tungsten powder particles
[NASA-CASE-XMP-04339] c17 N71-29137
 - Dry electrode manufacture, using silver powder with cement
[NASA-CASE-FRC-10029-2] c05 N72-25121
 - Grinding mixtures of powdered metals and inert fillers for conversion to halide
[NASA-CASE-LEW-10450-1] c15 N72-25448
 - Superalloys from prealloyed powders at high temperatures
[NASA-CASE-LEW-10805-1] c15 N73-13465
 - Method of heat treating a formed powder product material
[NASA-CASE-LEW-10805-3] c26 N74-10521
 - Method of forming articles of manufacture from superalloy powders

POWER AMPLIFIERS

- [NASA-CASE-LEW-10805-2] c37 N74-13179
Cermat composition and method of fabrication ---
heat resistant alloys and powders
[NASA-CASE-NPO-13120-1] c27 N76-15311

POWER AMPLIFIERS

- Characteristics of high power, low distortion,
alternating current power amplifier
[NASA-CASE-LAR-10218-1] c09 N70-34559
Power supply with automatic power factor
conversion system
[NASA-CASE-XMS-02159] c10 N71-22961
Solid state broadband stable power amplifier
[NASA-CASE-XNP-10854] c10 N71-26331
High efficiency transformerless amplitude
modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430
Isolated output system for a class D
switching-mode amplifier
[NASA-CASE-MPS-21616-1] c33 N75-30429

POWER EFFICIENCY

- Low power drain transistor feedback circuit
[NASA-CASE-IGS-04999] c09 N69-24317
Excitation and detection circuitry for flux
responsive magnetic head
[NASA-CASE-XNP-04183] c09 N69-24329
Increasing available power per unit area in ion
rocket engine by increasing beam density
[NASA-CASE-XLE-00519] c28 N70-41576
Absorbing gas reactivity control system for
minimizing power distribution and perturbation
in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597
Remote platform power conserving system
[NASA-CASE-GSC-11182-1] c15 N75-13007

POWER GAIN

- Serrodyne traveling wave tube reentrant
amplifier for synchronous communication
satellites operating at microwave frequencies
[NASA-CASE-XGS-01022] c07 N71-16088
Switching circuit for control of cathode ray
tube beam with fast rise time for output signal
[NASA-CASE-KSC-10647-1] c10 N72-31273

POWER LIMITERS

- Monostable multivibrator for conserving power in
spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221

POWER LINES

- Patent data on terminal insert connector for
flat electric cables
[NASA-CASE-XNP-00324] c09 N70-34596
Motor run-up system --- power lines
[NASA-CASE-NPO-13374-1] c33 N75-19524
Apparatus including a plurality of spaced
transformers for locating short circuits in
cables
[NASA-CASE-KSC-10899-1] c33 N79-18193

POWER SERIES

- Describing circuit for obtaining sum of squares
of numbers
[NASA-CASE-IGS-04765] c08 N71-18693
Phase modulating with odd and even finite power
series of a modulating signal
[NASA-CASE-LAR-11607-1] c32 N77-14292

POWER SPECTRA

- Method and apparatus for high resolution power
spectrum analysis
[NASA-CASE-NPO-10748] c08 N72-20177

POWER SUPPLIES

- Tape recorder designed for low power consumption
and resistance to operational failure under
high stress conditions
[NASA-CASE-IGS-08259] c14 N71-23698
Current dependent variable inductance for input
filter chokes of ac or dc power supplies
[NASA-CASE-ERC-10139] c09 N72-17154
Performance of ac power supply developed for CO2
laser system
[NASA-CASE-GSC-11222-1] c16 N73-32391
High voltage distributor
[NASA-CASE-GSC-11849-1] c33 N76-16332

POWER SUPPLY CIRCUITS

- Regulated dc to dc converter
[NASA-CASE-XGS-03429] c03 N69-21330
Power control switching circuit using low
voltage semiconductor controlled rectifiers
for high voltage isolation
[NASA-CASE-XNP-02713] c10 N69-39888
Increasing power conversion efficiency of
electronic amplifiers by power supply switching

SUBJECT INDEX

- [NASA-CASE-XMS-00945] c09 N71-10798
Electric power system utilizing thermionic
plasma diodes in parallel and heat pipes as
cathodes
[NASA-CASE-XNP-05843] c03 N71-11055
Pulsed energy power system for application of
combustible gases to turbine controlling ac
voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
Data processor having multiple sections
activated at different times by selective
power coupling to sections
[NASA-CASE-XGS-04767] c08 N71-12494
Microwave power receiving antenna solving heat
dissipation problems by construction of
elements as heat pipe devices
[NASA-CASE-MPS-20333] c09 N71-13486
Design, development, and operating principles of
power supply with starting circuit which is
independent of voltage regulator
[NASA-CASE-XMS-01991] c09 N71-21449
Power supply with automatic power factor
conversion system
[NASA-CASE-XMS-02159] c10 N71-22961
Electric circuit for reversing direction of
current flow
[NASA-CASE-XNP-00952] c10 N71-23271
Power supply with overload protection for series
stage transistor
[NASA-CASE-XMS-00913] c10 N71-23543
Automatic power supply circuit design for
driving inductive loads and minimizing power
consumption including solenoid example
[NASA-CASE-NPO-10716] c09 N71-24892
Unsaturating magnetic core transformer design
with warning signal for electrical power
processing equipment
[NASA-CASE-ERC-10125] c09 N71-24893
Device for monitoring voltage by generating
signal when voltages drop below predetermined
value
[NASA-CASE-KSC-10020] c10 N71-27338
Power point tracker for maintaining optimal
output voltage of power source
[NASA-CASE-GSC-10376-1] c14 N71-27407
Microwave power divider for providing variable
output power to output waveguide in fixed
waveguide system
[NASA-CASE-NPO-11031] c07 N71-33606
Circuit for monitoring power supply by ripple
current indication
[NASA-CASE-KSC-10162] c09 N72-11225
Dc to ac to dc converter with transistor driven
synchronous rectifiers
[NASA-CASE-GSC-11126-1] c09 N72-25253
IC-oscillator with automatic stabilized
amplitude via bias current control --- power
supply circuit for transducers
[NASA-CASE-MPS-21698-1] c33 N74-26732
Integrable power gyrator --- with Z-matrix
design using parallel transistors
[NASA-CASE-MPS-22342-1] c33 N75-30428
The dc-to-dc converters employing
staggered-phase power switches with two-loop
control
[NASA-CASE-NPO-13512-1] c33 N77-10428
Circuit for automatic load sharing in parallel
converter modules
[NASA-CASE-NPO-14056-1] c33 N77-32402
Control for nuclear thermionic power source
[NASA-CASE-NPO-13114-2] c73 N78-28913
Closed loop solar array-ion thruster system with
power control circuitry
[NASA-CASE-LEW-12780-1] c20 N79-20179
- PRECESSION
Dynamic precession damping of spin-stabilized
vehicles by using rate gyroscope and angular
accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295
- PRECIPITATION (CHEMISTRY)
Production of pure metals
[NASA-CASE-LEW-10906-1] c25 N74-30502
- PRECISION
Precision stepping drive device using cam disk
[NASA-CASE-MPS-14772] c15 N71-17692
Method and apparatus for precision sizing and
joining of large diameter tubes by bulging or
constricting overlapping ends
[NASA-CASE-XNP-05114-2] c15 N71-26148

SUBJECT INDEX

PRESSURE SENSORS

PREFLIGHT OPERATIONS

Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545

PRELAUNCH TESTS

Low loss parasitic probe antenna for prelaunch tests of spacecraft antennas
[NASA-CASE-XKS-09348] c09 N71-13521
Digital computer system for automatic prelaunch checkout of spacecraft
[NASA-CASE-XKS-08012-2] c31 N71-15566

PREPOLYMERES

Carboxyl terminated polyester prepolymers and foams produced from prepolymers and materials
[NASA-CASE-NPO-10596] c06 N71-25929
Structural wood panels with improved fire resistance --- using prepolymers and hexamethylenetetramine
[NASA-CASE-ARC-11174-1] c24 N78-28178

PRESSSES

Hydrostatic extrusion of refractory materials using simple press
[NASA-CASE-NPO-10811] c15 N71-34425

PRESSURE

Strain gage mounting assembly
[NASA-CASE-NPO-13170-1] c35 N76-14430
Thermal barrier pressure seal
[NASA-CASE-HSC-18134-1] c37 N79-17225

PRESSURE CHAMBERS

Triggering system for electric arc driven impulse wind tunnel
[NASA-CASE-XMP-00411] c11 N70-36913
Whole body measurement systems --- for weightlessness simulation
[NASA-CASE-HSC-13972-1] c52 N74-10975
Accumulator
[NASA-CASE-NFS-19287-1] c34 N77-30399

PRESSURE DISTRIBUTION

Piston device for producing known constant positive pressure within lungs by using thoracic muscles
[NASA-CASE-XMS-01615] c05 N70-41329
Preventing pressure buildup in electrochemical cells by reacting palladium oxide with evolved hydrogen
[NASA-CASE-XGS-01419] c03 N70-41864
Accumulator
[NASA-CASE-NFS-19287-1] c34 N77-30399

PRESSURE DROP

Leak detector
[NASA-CASE-NFS-21761-1] c35 N75-15931

PRESSURE EFFECTS

System for stabilizing cable phase delay utilizing a coaxial cable under pressure
[NASA-CASE-NPO-13138-1] c33 N74-17927
Evacuated, displacement compression mold --- of tubular bodies from thermosetting plastics
[NASA-CASE-LAR-10782-2] c31 N75-13111
Internally supported flexible duct joint --- device for conducting fluids in high pressure systems
[NASA-CASE-NFS-19193-1] c37 N75-19686

PRESSURE GAGES

Differential pressure cell insensitive to changes in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816
Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
[NASA-CASE-XMS-06061] c05 N71-23317
Control system for pressure balance device used in calibrating pressure gages
[NASA-CASE-XMP-04134] c14 N71-23755
Improved McLeod gage for pressure measurement
[NASA-CASE-XAC-04458] c14 N71-24232
Ultrahigh vacuum gauge with two collector electrodes
[NASA-CASE-LAR-02743] c14 N73-32324
Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-NFS-22597] c36 N78-17366
Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-NFS-22517-1] c36 N79-21333

PRESSURE GRADIENTS

Positive displacement flowmeter for measuring extremely low flows of fluid with self

calibrating features
[NASA-CASE-XMP-02822] c14 N70-41994
PRESSURE MEASUREMENTS
Design and development of inertia diaphragm pressure transducer
[NASA-CASE-XAC-02981] c14 N71-21072
Design and development of pressure sensor for measuring differential pressures of few pounds per square inch
[NASA-CASE-XMP-01974] c14 N71-22752
Improved McLeod gage for pressure measurement
[NASA-CASE-XAC-04458] c14 N71-24232
Coherent light beam device and method for measuring gas density in vacuum chambers
[NASA-CASE-XER-11203] c14 N71-28994
Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow
[NASA-CASE-LFW-10281-1] c14 N72-17327
Calibration of vacuum gauges for measuring total and partial pressures in ultrahigh vacuum region
[NASA-CASE-XGS-07752] c14 N73-30390
Absolute pressure measuring device for measuring gas density level in high vacuum range
[NASA-CASE-LAR-10000] c14 N73-30394
Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955
High-temperature microphone system
[NASA-CASE-LAR-12375-1] c32 N78-23275
Static pressure orifice system testing and apparatus
[NASA-CASE-LAR-12269-1] c09 N78-33123
Indicated mean-effective pressure instrument
[NASA-CASE-LFW-12661-1] c35 N79-14345
An improved system for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations
[NASA-CASE-FRC-11024-1] c02 N79-17797
PRESSURE REDUCTION
Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-XMS-05894-1] c15 N69-21924
Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051
Depressurization of arc lamps
[NASA-CASE-NPO-10790-1] c33 N77-21316
A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control
[NASA-CASE-NPO-10474-1] c26 N78-27255
PRESSURE REGULATORS
Pressure regulating system with high pressure fluid source, adapted to maintain constant downstream pressure
[NASA-CASE-XNP-00450] c15 N70-38603
Pulmonary resuscitation method and apparatus with adjustable pressure regulator
[NASA-CASE-XMS-01115] c05 N70-39922
Structural design of high pressure regulator valve
[NASA-CASE-XNP-00710] c15 N71-10778
Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194
Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203
Antibacklash circuit for hydraulic drive system
[NASA-CASE-XNP-01020] c03 N71-12260
High impact pressure regulator having minimum number of lightweight movable elements
[NASA-CASE-NPO-10175] c14 N71-18625
Pressure regulator for space suit worn underwater to simulate space environment for testing and experimentation
[NASA-CASE-NFS-20332] c05 N72-20097
Underwater space suit pressure control regulator
[NASA-CASE-NFS-20332-2] c05 N73-25125
Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050
Pressure modulating valve
[NASA-CASE-HSC-14905-1] c37 N77-28487
Flow compensating pressure regulator
[NASA-CASE-LFW-12718-1] c34 N78-25351
PRESSURE SENSORS
Fabrication of pressure-telemetry transducers
[NASA-CASE-XNP-09752] c14 N69-21541
Pressure probe for sensing ambient static air pressures

PRESSURE SUITS

SUBJECT INDEX

[NASA-CASE-XLA-00481] c14 N70-36824
 Ambient atmospheric pressure sensing device for
 determining altitude of flight vehicles
 [NASA-CASE-XLA-00128] c15 N70-37925
 Dynamic sensor for gas pressure or density
 measurement
 [NASA-CASE-IAC-02877] c14 N70-41681
 Design and development of inertia diaphragm
 pressure transducer
 [NASA-CASE-IAC-02981] c14 N71-21072
 Design and development of pressure sensor for
 measuring differential pressures of few pounds
 per square inch
 [NASA-CASE-INP-01974] c14 N71-22752
 Combination pressure transducer-calibrator
 assembly for measuring fluid
 [NASA-CASE-INP-01660] c14 N71-23036
 Pressure sensor network for measuring liquid
 dynamic response in flight including fuel tank
 acceleration, liquid slosh amplitude, and fuel
 depth monitoring
 [NASA-CASE-XLA-05541] c12 N71-26387
 Miniature electromechanical junction transducer
 operating on piezoelectric effect and
 utilizing epoxy for stress coupling component
 [NASA-CASE-ERC-10087] c14 N71-27334
 Method for making pressurized meteoroid
 penetration detector panels
 [NASA-CASE-XLA-08916] c15 N71-29018
 Design, development, and characteristics of
 pressure and temperature sensor operating
 immersed in fluid flow
 [NASA-CASE-LBW-10281-1] c14 N72-17327
 Pressure transducer for systems for measuring
 forces of compression
 [NASA-CASE-NPO-10832] c14 N72-21405
 Pressure operated electrical switch responsive
 to pressure decrease after pressure increase
 [NASA-CASE-LAR-10137-1] c09 N72-22204
 Wide range dynamic pressure sensor with
 vibrating diaphragm for measuring density and
 pressure of gaseous environment
 [NASA-CASE-ARC-10263-1] c14 N72-22438
 Development of differential pressure control
 system using notion of mechanical diaphragms
 to operate electric switch
 [NASA-CASE-MFS-14216] c14 N73-13418
 Pressurized panel meteoroid detector
 [NASA-CASE-XLA-08916-2] c14 N73-28487
 System for calibrating pressure transducer
 [NASA-CASE-LAR-10910-1] c35 N74-13132
 Stagnation pressure probe --- for measuring
 pressure of supersonic gas streams
 [NASA-CASE-LAR-11139-1] c35 N74-32878
 Circuit for detecting initial systole and
 diastolic notch --- for monitoring arterial
 pressure
 [NASA-CASE-LBW-11581-1] c54 N75-13531
 Leak detector
 [NASA-CASE-MFS-21761-1] c35 N75-15931
 Measurement of gas production of microorganisms
 --- using pressure sensors
 [NASA-CASE-LAR-11326-1] c35 N75-33368
 Static pressure probe
 [NASA-CASE-LAR-11552-1] c35 N76-14429
 Trielectrode capacitive pressure transducer
 [NASA-CASE-ARC-10711-2] c33 N76-21390
 Catheter tip force transducer for cardiovascular
 research
 [NASA-CASE-NPO-13643-1] c52 N76-29896
 Miniature biaxial strain transducer
 [NASA-CASE-LAR-11648-1] c35 N77-14407
 Pressure transducer --- using a monomeric charge
 transfer complex sensor
 [NASA-CASE-NPO-11150] c35 N78-17359
 Electronically scanned pressure sensor module
 with in SITU calibration capability
 [NASA-CASE-LAR-12230-1] c35 N79-14347

PRESSURE SUITS
 Helmet and torso tiedown mechanism for
 shortening pressure suits upon inflation
 [NASA-CASE-XMS-00784] c05 N71-12335
 Design and development of flexible joint for
 pressure suits
 [NASA-CASE-XMS-09636] c05 N71-12344
 Cord restraint system for pressure suit joints
 [NASA-CASE-XMS-09635] c05 N71-24623
 Development of improved convolute section for
 pressurized suits to provide high degree of

mobility in response to minimum of applied
 torque
 [NASA-CASE-XMS-09637-1] c05 N71-24730
 Fabrication of root cord restrained fabric suit
 sections from sheets of fabric
 [NASA-CASE-MSC-12398] c05 N72-20098
 Restraint torso for increased mobility and
 reduced physiological effects while wearing
 pressurized suits
 [NASA-CASE-MSC-12397-1] c05 N72-25119
 Flexible joint for pressurizable garment
 [NASA-CASE-MSC-11072] c54 N74-32546
 Walking boot assembly
 [NASA-CASE-ARC-11101-1] c54 N78-17675

PRESSURE SWITCHES
 Reinforcing beam system for highly flexible
 diaphragms in valves or pressure switches
 [NASA-CASE-XNP-01962] c32 N70-41370

PRESSURE VESSELS
 Liquid rocket systems for propulsion and control
 of spacecraft
 [NASA-CASE-XNP-00610] c28 N70-36910
 Thin walled pressure test vessel using
 low-melting alloy-filled joint to attach shell
 to heads
 [NASA-CASE-XLE-04677] c15 N71-10577
 Control of gas flow from pressurized vessel by
 thermal expansion of metal plug
 [NASA-CASE-NPO-10298] c12 N71-17661
 Method and apparatus for inducing compressive
 stresses in pressure vessel to prevent stress
 corrosion
 [NASA-CASE-XLA-07390] c15 N71-18616
 Heater-mixer for stored fluids
 [NASA-CASE-ARC-10442-1] c35 N74-15093
 Method and apparatus for nondestructive testing
 of pressure vessels
 [NASA-CASE-NPO-12142-1] c38 N76-28563
 Gas compression apparatus
 [NASA-CASE-MSC-14757-1] c35 N78-10428

PRESSURE WELDING
 Diffusion welding --- heat treatment of nickel
 alloys following single step vacuum welding
 process
 [NASA-CASE-LBW-11388-2] c37 N74-21055

PRESSURIZING
 Restraining mechanism
 [NASA-CASE-MSC-13054] c54 N78-17677

PRESTRESSING
 Prestressed rocket nozzle with ceramic inner
 rings and refractory metal outer rings
 [NASA-CASE-XNP-02888] c18 N71-21068

PRETREATMENT
 Anti-wettable materials brazing processes using
 titanium and zirconium for surface pretreatment
 [NASA-CASE-XMS-03537] c15 N69-21471

PRINTED CIRCUITS
 Electrical feedthrough connection for printed
 circuit boards
 [NASA-CASE-XNP-01483] c14 N69-27431
 Electric connector for printed cable to printed
 cable or to printed board
 [NASA-CASE-XNP-00369] c09 N70-36494
 Electrical connection for printed circuits on
 common board, using bellows principle in rivet
 [NASA-CASE-XNP-05082] c15 N70-41960
 Electrical spot terminal assembly for printed
 circuit boards
 [NASA-CASE-NPO-10034] c15 N71-17685
 Solder coating process for printed copper
 circuit protection
 [NASA-CASE-XNP-01599] c09 N71-20705
 Handling tool for printed circuit cards
 [NASA-CASE-MFS-20453] c15 N71-29133
 Development and characteristics of polyimide
 impregnated laminates with fiberglass cloth
 backing for application as printed circuit
 boards
 [NASA-CASE-MFS-20408] c18 N73-12604
 Techniques for packaging and mounting printed
 circuit boards
 [NASA-CASE-MFS-21919-1] c10 N73-25243
 Device for configuring multiple leads --- method
 for connecting electric leads to printed
 circuit board
 [NASA-CASE-MFS-22133-1] c33 N74-26977
 Connector --- for connecting circuits on
 different layers of multilayer printed circuit
 boards

SUBJECT INDEX

PROPELLANT GRAINS

- [NASA-CASE-LAR-11709-1] c37 N76-27567
Controlled caging and uncaging mechanism
[NASA-CASE-GSC-11063-1] c37 N77-27400
A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N77-28585
Solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N79-17314
- PRINTING**
Application of semiconductor diffusants to solar cells by screen printing
[NASA-CASE-LEW-12775-1] c44 N79-11468
- PRINTOUTS**
Handling tool for printed circuit cards
[NASA-CASE-MPS-20453] c15 N71-29133
- PRISMS**
Interferometer prism and control system for precisely determining direction to remote light source
[NASA-CASE-ABC-10278-1] c14 N73-25463
Method and apparatus for splitting a beam of energy --- optical communication
[NASA-CASE-GSC-12083-1] c73 N78-32848
- PROBES**
Method and apparatus for connecting two spacecraft with probe of one inserted in rocket engine nozzle of other spacecraft
[NASA-CASE-MPS-11133] c31 N71-16222
Development of droplet monitoring probe for use in analysis of droplet propagation in mixed-phase fluid stream
[NASA-CASE-NPO-10985] c14 N73-20478
Subcutaneous channeling probe
[NASA-CASE-ABC-11091-1] c52 N79-11684
- PRODUCT DEVELOPMENT**
Using molds for fabricating individual fluid circuit components
[NASA-CASE-ILA-07829] c15 N72-16329
Process for developing filament reinforced plastic tubes used in research and development programs
[NASA-CASE-LAR-10203-1] c15 N72-16330
Simplified technique and device for producing industrial grade synthetic diamonds
[NASA-CASE-MPS-20698-2] c15 N73-19457
High power laser apparatus and system
[NASA-CASE-XLE-2529-2] c36 N75-27364
Ceramic fiber insulating material and methods of producing same --- product development of foams for thermal insulation
[NASA-CASE-MSC-14795-1] c27 N76-1534
- PRODUCTION ENGINEERING**
Standard coupling design for mass production
[NASA-CASE-IMS-02532] c15 N70-41808
Fabrication of curved reflector segments for solar mirror
[NASA-CASE-XLE-08917] c15 N71-15597
Production of barium fluoride-calcium fluoride composite lubricant for bearings or seals
[NASA-CASE-XLE-08511-2] c18 N71-16105
Fabrication of sintered impurity semiconductor brushes for electrical energy transfer
[NASA-CASE-XNP-01016] c26 N71-17818
Technique for making foldable, inflatable, plastic honeycomb core panels for use in building and bridge structures, light and radio wave reflectors, and spacecraft
[NASA-CASE-ILA-03492] c15 N71-22713
Multilayer porous refractory metal ionizer design with thick, porous, large-grain substrates and thin, porous micron-grain substrates
[NASA-CASE-XNP-04338] c17 N71-23046
Permanently magnetized ion engine casing construction for use in spacecraft propulsion systems
[NASA-CASE-XNP-06942] c28 N71-23293
Dry electrode design with wire sandwiched between two flexible conductive discs for monitoring physiological responses
[NASA-CASE-PRC-10029] c09 N71-24618
Production method of star tracking reticles for transmitting in visible and near ultraviolet regions
[NASA-CASE-GSC-11188-1] c14 N73-32320
Process for making sheets with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c37 N75-26371
- Strong thin membrane structure
[NASA-CASE-NPO-14021-1] c27 N77-32313
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441
On-site ammonia plant
[NASA-CASE-NPO-14233-1] c25 N78-27233
A method and means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains
[NASA-CASE-NPO-14298-1] c76 N79-10917
An improved apparatus for use in the production of ribbon-shaped crystals from a silicon melt
[NASA-CASE-NPO-14297-1] c76 N79-10918
Solar cell collector and method for producing same
[NASA-CASE-LEW-12552-2] c44 N79-11472
Multilevel metallization method for fabricating a metal oxide semiconductor device
[NASA-CASE-MPS-23541-1] c76 N79-14906
Solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N79-17314
- PROJECTILES**
Self-obturator gas-operated launcher for launching projectiles in decontaminated medium
[NASA-CASE-NPO-11013] c11 N72-22247
Two stage light gas-plasma projectile accelerator
[NASA-CASE-MPS-22287-1] c75 N76-14991
Antiaircraft system and method employing small projectiles
[NASA-CASE-PRC-11006-1] c99 N79-10995
- PROJECTION**
Projection system for display of parallax and perspective
[NASA-CASE-MPS-23194-1] c35 N78-17357
- PROJECTIVE GEOMETRY**
Projection system for display of parallax and perspective
[NASA-CASE-MPS-23194-1] c35 N78-17357
- PROJECTORS**
Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882
System and method for obtaining wide screen Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856
- PROPAGATION MODES**
Dual waveguide mode source for controlling amplitudes of two modes
[NASA-CASE-XNP-03134] c07 N71-10676
- PROPELLANT ACTUATED INSTRUMENTS**
A pressure limiting propellant actuating system
[NASA-CASE-MSC-18179-1] c20 N78-31162
- PROPELLANT ADDITIVES**
Inhibited solid propellant composition containing beryllium hydride
[NASA-CASE-NPO-10866-1] c28 N79-14228
- PROPELLANT BINDERS**
Chemical process for production of polyisobutylene compounds and application as solid rocket propellant binder
[NASA-CASE-NPO-10893] c27 N73-22710
- PROPELLANT CASTING**
Casting propellant in rocket engine
[NASA-CASE-LAR-11995-1] c28 N77-10213
Solid propellant rocket motor and method of making same
[NASA-CASE-ILA-1349] c20 N77-17143
- PROPELLANT CHEMISTRY**
Nitramine propellants --- gun propellant burning rate
[NASA-CASE-NPO-14103-1] c28 N78-31255
- PROPELLANT COMBUSTION**
Spherical solid propellant rocket engine having abrupt burnout
[NASA-CASE-XHQ-01897] c28 N70-35381
Rocket combustion chamber stability by controlling transverse instability during propellant combustion
[NASA-CASE-XLE-04603] c33 N71-21507
- PROPELLANT DECOMPOSITION**
Unit for generating thrust from catalytic decomposition of hydrogen peroxide, for high altitude aircraft or spacecraft reaction control
[NASA-CASE-XHS-00583] c28 N70-38504
- PROPELLANT GRAINS**
Grain configuration for solid propellant rocket engines

PROPELLANT TANKS

SUBJECT INDEX

[NASA-CASE-XGS-03556] c27 N70-35534

PROPELLANT TANKS

Liquid rocket systems for propulsion and control of spacecraft

[NASA-CASE-INP-00610] c28 N70-36910

Slosh damping method for liquid rocket propellant tanks

[NASA-CASE-INP-00658] c12 N70-38997

Expulsion and measuring device for determining quantity of liquid in tank under conditions of weightlessness

[NASA-CASE-XMS-01546] c14 N70-40233

Collapsible auxiliary tank for restarting liquid propellant rocket motors under zero gravity

[NASA-CASE-INP-01390] c28 N70-41275

Liquid propellant tank design with semitoroidal bulkhead

[NASA-CASE-INP-01899] c31 N70-41948

Microleak detector mounted on weld seam of propellant tank of launch vehicle

[NASA-CASE-INP-02307] c14 N71-10779

Fabrication of filament wound propellant tank for cryogenic storage

[NASA-CASE-XLE-03803-2] c15 N71-17651

Slosh and swirl alleviator for liquid propellant tanks during transport and flight

[NASA-CASE-XLA-05749] c15 N71-19569

Two phase fluid pressurization system for propellant tank

[NASA-CASE-HSC-12390] c27 N71-29155

Space vehicle system

[NASA-CASE-HSC-12561-1] c18 N76-17185

Passive propellant system

[NASA-CASE-HFS-23642-2] c20 N78-27176

PROPELLANT TRANSFER

Two component valve assembly for cryogenic liquid transfer regulation

[NASA-CASE-XLE-00397] c15 N70-36492

Apparatus for cryogenic liquid storage with heat transfer reduction and for liquid transfer at zero gravity conditions

[NASA-CASE-XLE-00345] c15 N70-38020

Continuous variation of propellant flow and thrust by application of liquid foam flow theory to injection orifice

[NASA-CASE-XLE-00177] c28 N70-40367

Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment

[NASA-CASE-XLE-01182] c27 N71-15635

Electron bombardment ion rocket engine with improved propellant introduction system

[NASA-CASE-XLE-02066] c28 N71-15661

Rocket combustion chamber stability by controlling transverse instability during propellant combustion

[NASA-CASE-XLE-04603] c33 N71-21507

Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer

[NASA-CASE-INP-04042] c15 N71-23023

Filler valve design for supplying liquid propellants at high pressure to space vehicles

[NASA-CASE-INP-01747] c15 N71-23024

Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster

[NASA-CASE-LEW-10210-1] c28 N71-26781

Flexible bellows joint shielding sleeve for propellant transfer pipelines

[NASA-CASE-INP-01855] c15 N71-28937

Passive propellant system

[NASA-CASE-HFS-23642-2] c20 N78-27176

A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor

[NASA-CASE-HFS-23904-1] c20 N79-13077

PROPELLER BLADES

Directed fluid stream for propeller blade loading control

[NASA-CASE-IAC-00139] c02 N70-34856

PROPORTIONAL CONTROL

Proportional controller for regulating aircraft or spacecraft motion about three axes

[NASA-CASE-IAC-03392] c03 N70-41954

PROPULSION

A speed control device for a heavy duty shaft

[NASA-CASE-NPO-14170] c37 N78-17391

PROPULSION SYSTEM CONFIGURATIONS

Electrothermal rocket engine using resistance heated heat exchanger

[NASA-CASE-XLE-00267] c28 N70-33356

Grain configuration for solid propellant rocket engines

[NASA-CASE-XGS-03556] c27 N70-35534

Shrouded composite propulsion system configuration

[NASA-CASE-XLA-01043] c28 N71-10780

Electrostatic microthrust propulsion system with annular slit colloid thruster

[NASA-CASE-GSC-10709-1] c28 N71-25213

Method and apparatus for pressurizing propellant tanks used in propulsion motor feed system

[NASA-CASE-INP-00650] c27 N71-28929

A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor

[NASA-CASE-HFS-23904-1] c20 N79-13077

PROPULSION SYSTEM PERFORMANCE

Variable mixer propulsion cycle

[NASA-CASE-LEW-12917-1] c07 N78-18067

PROSTHETIC DEVICES

Prosthetic limb with tactile sensing device

[NASA-CASE-HFS-16570-1] c05 N73-32013

Orthotic arm joint --- for use in mechanical arms

[NASA-CASE-HFS-21611-1] c54 N75-12616

Actuator device for artificial leg

[NASA-CASE-HFS-23225-1] c52 N77-14735

Aldehyde-containing urea-absorbing polysaccharides

[NASA-CASE-NPO-13620-1] c27 N77-30236

Rotational joint assembly for the prosthetic leg

[NASA-CASE-KSC-11004-1] c54 N77-30749

Compact artificial hand

[NASA-CASE-NPO-13906-1] c54 N77-32723

Mechanical energy storage device for hip disarticulation

[NASA-CASE-ABC-10916-1] c52 N78-10686

Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement

[NASA-CASE-NPO-13764-1] c27 N78-17215

Drop foot corrective device

[NASA-CASE-LAR-12259-1] c54 N78-18762

A prosthesis coupling

[NASA-CASE-KSC-11069-1] c54 N78-22721

Prosthetic urinary sphincter

[NASA-CASE-HFS-23717-1] c52 N79-14756

PROTECTION

Camera protecting device for use in photographing rocket engine nozzles or other engine components

[NASA-CASE-NPO-10174] c14 N71-18465

Fiber modified polyurethane foam for ballistic protection

[NASA-CASE-ABC-10714-1] c27 N76-15310

PROTECTIVE CLOTHING

Conditioning tanned sharkskin for use as abrasive resistant clothing

[NASA-CASE-XMS-09691-1] c18 N71-15545

One piece human garment for use as contamination proof garment

[NASA-CASE-HSC-12206-1] c05 N71-17599

Thermoregulating with cooling flow pipe network for humans

[NASA-CASE-XMS-10269] c05 N71-24147

Development of improved convolute section for pressurized suits to provide high degree of mobility in response to minimum of applied torque

[NASA-CASE-XMS-09637-1] c05 N71-24730

Voice operated receiving and transmitting system for use in protective suits

[NASA-CASE-KSC-10164] c07 N71-33108

Protective garment ventilation system

[NASA-CASE-XMS-04928] c54 N78-17679

Protective garment ventilation system

[NASA-CASE-XMS-04928-1] c54 N79-21765

PROTECTIVE COATINGS

Process permitting application of synthetic resin coating to irregular-shaped objects at ambient temperature

[NASA-CASE-INP-06508] c18 N69-39895

Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft

[NASA-CASE-XGS-04119] c18 N69-39979

Application techniques for protecting materials during salt bath brazing

SUBJECT INDEX

PULSE CODE MODULATION

- [NASA-CASE-XLE-00046] c15 N70-33311
Removable potting compound for instrument shock protection
- [NASA-CASE-XLA-00482] c15 N70-36409
Passive thermal control coating on aluminum foil laminate for inflatable spacecraft surfaces
- [NASA-CASE-XLA-01291] c33 N70-36617
Using ethylene oxide in preparation of sterilized solid rocket propellants and encapsulating materials
- [NASA-CASE-XNP-01749] c27 N70-41897
Fireproof potassium silicate coating composition, insoluble in water after application
- [NASA-CASE-GSC-10072] c18 N71-14014
Development of bacteriostatic conformal coating and methods of application
- [NASA-CASE-GSC-10007] c18 N71-16046
Vapor deposited laminated nitride-silicon coating for corrosion prevention of carbonaceous surfaces
- [NASA-CASE-XLA-00284] c15 N71-16075
Flame or plasma spraying for molybdenum coating of carbon or graphite surfaces to prevent oxidative corrosion
- [NASA-CASE-XLA-00302] c15 N71-16077
Development and characteristics of protective coatings for spacecraft
- [NASA-CASE-XNP-02507] c31 N71-17679
Development of thermal insulation system for wing and control surfaces of hypersonic aircraft and reentry vehicles
- [NASA-CASE-XLA-00892] c33 N71-17897
Bismuth and lead surface coatings for gas bearings in aerospace engineering
- [NASA-CASE-XGS-02011] c15 N71-20739
Composition and production method of alkali metal silicate paint with ultraviolet reflection properties
- [NASA-CASE-XGS-04799] c18 N71-24183
Method for treating metal surfaces to prevent secondary electron transmission
- [NASA-CASE-XNP-09469] c24 N71-25555
Development of solid state polymer coating for obtaining thermal balance in spacecraft components
- [NASA-CASE-XLA-01745] c33 N71-28903
Method for coating through-holes in ceramic substrates used in fabricating miniaturized electronic circuits
- [NASA-CASE-XNP-05999] c15 N71-29032
Zinc dust formulation for abrasion resistant steel coatings
- [NASA-CASE-GSC-10361-1] c18 N72-23581
Development of process for constructing protective covers for solar cells
- [NASA-CASE-GSC-11514-1] c03 N72-24037
Resin for protecting p-n semiconductor junction surface
- [NASA-CASE-ERC-10339-1] c18 N73-30532
Nonflammable coating compositions --- for use in high oxygen environments
- [NASA-CASE-MPS-20486-2] c27 N74-17283
Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
- [NASA-CASE-LEW-11179-1] c27 N76-16229
High temperature oxidation resistant cermet compositions
- [NASA-CASE-NPO-13666-1] c27 N77-13217
Leading edge protection for composite blades
- [NASA-CASE-LEW-12550-1] c24 N77-19170
Abrasion resistant coatings for plastic surfaces
- [NASA-CASE-ARC-10915-3] c24 N77-24200
Fire protection covering for small diameter missiles
- [NASA-CASE-ARC-11104-1] c15 N78-13110
Intumescent coatings containing 4,4'-dinitrosulfanilide
- [NASA-CASE-ARC-11042-1] c24 N78-14096
Sprayable low density ablator and application process
- [NASA-CASE-MPS-23506-1] c24 N78-24290
Flame retardant formulations and products produced therefrom
- [NASA-CASE-MSC-16307-1] c25 N78-27232
Reaction cured glass and glass coatings
- [NASA-CASE-ARC-11051-1] c27 N78-32260
Spray coating apparatus having a rotatable workpiece holder
- [NASA-CASE-ARC-11110-1] c37 N78-32434
Infusible silazane polymer and process for producing same --- protective coatings
- [NASA-CASE-XNP-02526-1] c27 N79-21190
PROTECTORS
Load cell protection device using spring-loaded breakaway mechanism
- [NASA-CASE-XMS-06782] c32 N71-15974
Payload soft landing system using stowable gas bag
- [NASA-CASE-XLA-09881] c31 N71-16085
PROTEINS
Protein sterilization of firefly luciferase without denaturation
- [NASA-CASE-GSC-10225-1] c06 N73-27086
PROTON FLUX DENSITY
Flame detector operable in presence of proton radiation
- [NASA-CASE-MPS-21577-1] c19 N74-29410
PSEUDONOISE
System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes
- [NASA-CASE-NPO-10214] c10 N71-26577
Linear shift register with feedback logic for generating pseudonoise linear recurring binary sequences
- [NASA-CASE-NPO-11406] c08 N73-12175
Multicarrier communications system for transmitting modulated signals from single transmitter
- [NASA-CASE-NPO-11548] c07 N73-26118
Pseudo-noise test set for communication system evaluation --- test signals
- [NASA-CASE-MPS-22671-1] c35 N75-21564
PULLEYS
Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
- [NASA-CASE-XMS-04545] c15 N71-22878
Tensile strength testing device having pulley guides for exerting multiple forces on test specimen
- [NASA-CASE-XNP-05634] c15 N71-24834
Belt for coupling driven members
- [NASA-CASE-GSC-12276-1] c37 N78-32429
PULMONARY CIRCULATION
Pulmonary resuscitation method and apparatus with adjustable pressure regulator
- [NASA-CASE-XMS-01115] c05 N70-39922
PULMONARY FUNCTIONS
Piston device for producing known constant positive pressure within lungs by using thoracic muscles
- [NASA-CASE-XMS-01615] c05 N70-41329
PULSE AMPLITUDE
Monitoring system for signal amplitude ranges over predetermined time interval
- [NASA-CASE-XMS-04061-1] c09 N69-39885
Analog to digital converter for converting pulses to frequencies
- [NASA-CASE-XLA-00670] c08 N71-12501
Electrical testing apparatus for detecting amplitude and width of transient pulse
- [NASA-CASE-XNP-06519] c09 N71-12519
Analog to digital converter circuit for pulse height analysis
- [NASA-CASE-XNP-00477] c08 N73-28045
Electro-mechanical sine/cosine generator
- [NASA-CASE-LAR-11389-1] c33 N77-26387
Speech analyzer
- [NASA-CASE-GSC-11898-1] c32 N77-30309
PULSE AMPLITUDE MODULATION
Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
- [NASA-CASE-XNP-04367] c09 N71-23545
Pulse switching for high energy lasers
- [NASA-CASE-NPO-14556-1] c36 N79-21336
PULSE CODE MODULATION
Adaptive compression signal processor for PCM communication systems
- [NASA-CASE-XLA-03076] c07 N71-11266
Bipolar phase detector and corrector for split phase PCM data signals
- [NASA-CASE-XMS-01590] c07 N71-12392

PULSE COMMUNICATION

SUBJECT INDEX

System for recording and reproducing PCM data from data stored on magnetic tape
[NASA-CASE-XGS-01021] c08 N71-21042

Frequency shift keying apparatus for use with pulse code modulation data transmission system
[NASA-CASE-XGS-01537] c07 N71-23405

Data reduction and transmission system for TV PCM data
[NASA-CASE-NPO-11243] c07 N72-20154

Pulse code modulated data from frequency multiplex communications by digital phase shift or carrier
[NASA-CASE-NPO-11338] c08 N72-25208

Bit synchronization of PCM communications signal, without separate synchronization channel by digital correlation
[NASA-CASE-NPO-11302-1] c07 N73-13149

Method and apparatus for a single channel digital communications system --- synchronization of received PCM signal by digital correlation with reference signal
[NASA-CASE-NPO-11302-2] c32 N74-10132

Multifunction audio digitizer --- producing direct delta and pulse code modulation
[NASA-CASE-MSC-13855-1] c35 N74-17885

Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12462-1] c32 N74-20809

Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12494-1] c32 N74-20810

Digital transmitter for data bus communications system
[NASA-CASE-MSC-14558-1] c32 N75-21486

Compact-bi-phase pulse coded modulation decoder
[NASA-CASE-KSC-10834-1] c33 N76-14371

Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-MSC-14557-1] c32 N76-16249

Differential pulse code modulation
[NASA-CASE-MSC-12506-1] c32 N77-12239

PULSE COMMUNICATION

Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication
[NASA-CASE-INP-00911] c08 N70-41961

Differential pulse code modulation
[NASA-CASE-MSC-12506-1] c32 N77-12239

PULSE DURATION

Frequency to analog converters with unipolar field effect transistor for determining potential charge by pulse duration of input signal
[NASA-CASE-INP-07040] c08 N71-12500

Electrical testing apparatus for detecting amplitude and width of transient pulse
[NASA-CASE-INP-06519] c09 N71-12519

Design and development of variable pulse width multiplier
[NASA-CASE-ILA-02850] c09 N71-20447

Device for voltage conversion using controlled pulse widths and arrangements to generate ac output voltage
[NASA-CASE-MPS-10068] c10 N71-25139

One shot multivibrator circuit for producing long duration output pulses
[NASA-CASE-ARC-10137-1] c09 N71-28468

Pulse stretcher for narrow pulses
[NASA-CASE-MSC-14130-1] c33 N74-32711

PULSE DURATION MODULATION

Pulse duration modulation multiplier system
[NASA-CASE-XER-09213] c07 N71-12390

Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
[NASA-CASE-ILA-01219] c10 N71-23084

Electric motor control system with pulse width modulation for providing automatic null seeking servo
[NASA-CASE-INP-05195] c10 N71-24861

Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418

Monostable multivibrator for producing output pulse widths with positive feedback NOR gates
[NASA-CASE-MSC-13492-1] c10 N71-28860

Load current sensor for series pulse width modulated power supply

[NASA-CASE-GSC-10656-1] c09 N72-25249

PULSE FREQUENCY MODULATION

Electric current measuring apparatus design including saturable core transformer and energy storage device to avoid magnetizing current errors from transformer output winding
[NASA-CASE-XGS-02439] c14 N71-19431

Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-XGS-02317] c09 N71-23525

Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-INP-09759] c08 N71-24891

Threshold extension device for improving operating performance of frequency modulation demodulators by eliminating click-type noise impulses
[NASA-CASE-MSC-12165-1] c07 N71-33696

Versatile LDV burst simulator
[NASA-CASE-LAR-11859-1] c35 N79-14349

PULSE GENERATORS

High voltage pulse generator for testing flash and ignition limits of nonmetallic materials in controlled atmospheres
[NASA-CASE-MSC-12178-1] c09 N71-13518

Interrogator and current driver circuit for combination with transistor flip-flop circuit
[NASA-CASE-XGS-03058] c10 N71-19547

Electric circuit for producing high current pulse having fast rise and fall time
[NASA-CASE-INP-04919] c09 N71-23270

Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311

Development and characteristics of resettable monostable pulse generator with charge rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016

Pulse generating circuit for operation at very high duty cycles and repetition rates
[NASA-CASE-INP-00745] c10 N71-28960

Pulse coupling circuit with switch between generator and winding
[NASA-CASE-LEW-10433-1] c09 N72-22197

Method and apparatus for nondestructive testing --- using high frequency arc discharges
[NASA-CASE-MPS-21233-1] c38 N74-15395

Random pulse generator
[NASA-CASE-MSC-14131-1] c33 N75-19515

PULSE RATE

Circuit for measuring wide range of pulse rates by utilizing high capacity counter
[NASA-CASE-INP-06234] c10 N71-27137

Peak holding circuit for extremely narrow pulses
[NASA-CASE-MSC-14129-1] c33 N75-18479

A signal attenuator --- pulse rate sensor circuits
[NASA-CASE-FRC-11012-1] c33 N78-28339

PULSED LASERS

Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832

Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654

Two wavelength double pulse tunable dye laser
[NASA-CASE-LAR-12012-1] c36 N77-10517

Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683

Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336

PULSED RADIATION

Development and characteristics of cyclically operable, optical shutter for use as focal plane shutter for transmitting single radiation pulses
[NASA-CASE-NPO-10758] c14 N73-14427

PULSES

High resolution radar transmitting system for transmitting optical pulses to targets
[NASA-CASE-NPO-11426] c07 N73-26119

PUMP SEALS

Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or

SUBJECT INDEX

QUARTZ

- indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants [NASA-CASE-INP-08881] c17 N71-28747
- Spiral groove seal --- for hydraulic rotating shaft [NASA-CASE-LEW-10326-3] c37 N74-10474
- PUMPS**
- Piezoelectric pump for supplying fluid at high frequencies to gyroscope fluid suspension system [NASA-CASE-INP-05429] c26 N71-21824
- Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer [NASA-CASE-INP-04042] c15 N71-23023
- Automatically reciprocating, high pressure pump for use in spacecraft cryogenic propellants [NASA-CASE-INP-04731] c15 N71-24042
- Development and characteristics of variable displacement fluid pump for transforming hydraulic pressures [NASA-CASE-MPS-20830] c15 N71-30028
- Pumping and metering dual piston system and monitor for reaction chamber constituents [NASA-CASE-GSC-10218-1] c15 N72-21465
- Magnetocaloric pump --- for cryogenic fluids [NASA-CASE-LEW-11672-1] c37 N74-27904
- PUNCHED CARDS**
- Describing device for flagging punched business cards [NASA-CASE-XLA-02705] c08 N71-15908
- Handling tool for printed circuit cards [NASA-CASE-MPS-20853] c15 N71-29133
- PUNCHES**
- Punch and die device for forming convolution series in thin gage metal hemispheres [NASA-CASE-INP-05297] c15 N71-23811
- PURGING**
- Carbon dioxide purge systems to prevent condensation in spaces between cryogenic fuel tanks and hypersonic vehicle skin [NASA-CASE-XLA-01967] c31 N70-42015
- Developing high pressure gas purification and filtration system for use in test operations of space vehicles [NASA-CASE-MPS-12806] c14 N71-17588
- Fluid transferring system design for purging toxic, corrosive, or noxious fluids and fumes from materials handling equipment for cleansing and accident prevention [NASA-CASE-XMS-01905] c12 N71-21089
- Device for back purging thrust engines [NASA-CASE-XMS-04826] c28 N71-28849
- Purging means and method for Xenon arc lamps [NASA-CASE-NPO-11978] c31 N78-17238
- PURIFICATION**
- Apparatus and method capable of receiving large quantity of high pressure helium, removing impurities, and discharging at received pressure [NASA-CASE-INP-06888] c15 N71-24044
- Purification apparatus for vaporization and fractional distillation of liquids [NASA-CASE-INP-08124] c15 N71-27184
- Water purification process [NASA-CASE-ABC-10643-2] c51 N75-13506
- Targets for producing high purity I-123 [NASA-CASE-LEW-10518-3] c25 N78-27226
- A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control [NASA-CASE-NPO-14474-1] c26 N78-27255
- Process for purification of waste water produced by a Kraft process pulp and paper mill [NASA-CASE-NPO-13847-2] c85 N79-17747
- PURITY**
- Synthesis of high purity dianilinosilanes [NASA-CASE-INP-06809] c06 N71-23230
- PUSH-PULL AMPLIFIERS**
- Frequency modulated oscillator [NASA-CASE-MPS-23181-1] c33 N77-17351
- PYRIDINES**
- Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof [NASA-CASE-NPO-10557] c27 N78-17214
- PYROGEN**
- Molded composite pyrogen igniter for rocket motors --- solid propellant ignition [NASA-CASE-LAR-12018-1] c20 N78-24275
- PYROLYSIS**
- Pyrolysis system and process --- recovering energy from solid wastes containing hydrocarbons [NASA-CASE-MSC-12669-1] c44 N76-16621
- PYROLYTIC GRAPHITE**
- Multislut film cooled pyrolytic graphite rocket nozzle [NASA-CASE-INP-04389] c28 N71-20942
- PYROLYTIC MATERIALS**
- Design, development, and characteristics of ablation structures [NASA-CASE-XMS-01816] c33 N71-15623
- PYROMETERS**
- Sensor device with switches for measuring surface recession of charring and noncharring ablators [NASA-CASE-XLA-01781] c14 N69-39975
- PYROTECHNICS**
- Energy source with tantalum capacitors in parallel and miniature silver oxide button cells for initiating pyrotechnic devices on spacecraft and rocket vehicles [NASA-CASE-LAR-10367-1] c03 N70-26817
- Development and characteristics of squib actuated explosive disconnect for spacecraft release from launch vehicle [NASA-CASE-NPO-11330] c33 N73-26958

Q

- Q SWITCHED LASERS**
- Optically detonated explosive device [NASA-CASE-NPO-11743-1] c28 N74-27425
- Spatial filter for Q-switched lasers [NASA-CASE-LEW-12164-1] c36 N77-32478
- Q VALUES**
- Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components [NASA-CASE-ARC-10042-2] c10 N72-11256
- QUADRATIC PROGRAMMING**
- Quadrature demodulation [NASA-CASE-GSC-12137-1] c33 N78-32338
- QUADRATURES**
- Automatic quadrature control and measuring system --- using optical coupling circuitry [NASA-CASE-MPS-21660-1] c35 N74-21017
- QUALITATIVE ANALYSIS**
- Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds [NASA-CASE-HQN-10756-1] c14 N72-25428
- Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples [NASA-CASE-MSC-14428-1] c23 N77-17161
- QUALITY CONTROL**
- Driver for solar cell I-V characteristic plots [NASA-CASE-NPO-14096-1] c44 N78-28625
- QUANTITATIVE ANALYSIS**
- Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement [NASA-CASE-NPO-10691] c14 N71-26199
- Quantitative liquid measurements in container by resonant frequencies [NASA-CASE-INP-02500] c18 N71-27397
- Ultraviolet chromatographic detector for quantitative and qualitative analysis of compounds [NASA-CASE-HQN-10756-1] c14 N72-25428
- Nondispersive gas analysis using radiation detection for quantitative analysis [NASA-CASE-ABC-10308-1] c06 N72-31141
- Analysis of volatile organic compounds --- trace amounts of organic volatiles in gas samples [NASA-CASE-MSC-14428-1] c23 N77-17161
- QUANTUM THEORY**
- III-V photocathode with nitrogen doping for increased quantum efficiency [NASA-CASE-NPO-12134-1] c33 N76-31409
- QUARTZ**
- Ultraviolet filter of thorium fluoride and cryolite on quartz base [NASA-CASE-INP-02340] c23 N69-24332
- Method for attaching a fused-quartz mirror to a conductive metal substrate [NASA-CASE-MPS-23405-1] c26 N77-29260
- A quartz ball valve [NASA-CASE-NPO-14473-1] c37 N79-10427

QUARTZ LAMPS

SUBJECT INDEX

QUARTZ LAMPS

High intensity heat and light unit containing quartz lamp elements protectively positioned to withstand severe environmental stress
 [NASA-CASE-XLA-00141] c09 N70-33312
 Light shield and cooling apparatus --- high intensity ultraviolet lamp
 [NASA-CASE-LAR-10089-1] c34 N74-23066

R

RACKS (FRAMES)

Design and development of test stand system for supporting test items in vacuum chamber
 [NASA-CASE-MFS-21362] c11 N73-20267
 Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft
 [NASA-CASE-MFS-21680-1] c18 N74-27397

RADAR ANTENNAS

Interferometric tuning acquisition and tracking radar antenna system
 [NASA-CASE-XMS-09610] c07 N71-24625
 Variable beamwidth antenna --- with multiple beam, variable feed system
 [NASA-CASE-GSC-11862-1] c32 N76-18295
 Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
 [NASA-CASE-NPO-13568-1] c32 N76-21365

RADAR ATTENUATION

FM/CW radar system
 [NASA-CASE-MFS-22234-1] c32 N79-10264

RADAR DATA

Charge-coupled device data processor for an airborne imaging radar system
 [NASA-CASE-NPO-13587-1] c32 N77-32342

RADAR ECHOES

Charge-coupled device data processor for an airborne imaging radar system
 [NASA-CASE-NPO-13587-1] c32 N77-32342

RADAR EQUIPMENT

Spacecraft transponder and ground station radar system for mapping planetary surfaces
 [NASA-CASE-NPO-11001] c07 N72-21118
 FM/CW radar system
 [NASA-CASE-MFS-22234-1] c32 N79-10264

RADAR IMAGERY

Method of locating persons in distress --- by using radar imagery from radar reflectors
 [NASA-CASE-LAR-11390-1] c32 N77-21267
 Clutter free synthetic aperture radar correlator
 [NASA-CASE-NPO-14035-1] c32 N78-18266
 Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
 [NASA-CASE-NPO-14525-1] c32 N79-19195

RADAR RANGE

Radar signal receiver arrangement for extending range and increasing signal to noise ratio
 [NASA-CASE-INP-00748] c07 N70-36911

RADAR RECEIVERS

Polarization diversity monopulse tracking receiver design without radio frequency switches
 [NASA-CASE-IGS-03501] c09 N71-20864

RADAR RECEPTION

Radar signal receiver arrangement for extending range and increasing signal to noise ratio
 [NASA-CASE-INP-00748] c07 N70-36911

RADAR REFLECTORS

Inflatable radar reflector unit - lightweight, highly reflective to electromagnetic radiation, and adaptable for erection and deployment with minimum effort and time
 [NASA-CASE-XMS-00893] c07 N70-40063
 Method of locating persons in distress --- by using radar imagery from radar reflectors
 [NASA-CASE-LAR-11390-1] c32 N77-21267

RADAR TARGETS

Radar target remotely sensing hydrological phenomena
 [NASA-CASE-LAR-12344-1] c43 N78-33511

RADAR TRACKING

Tracking antenna system with array for synchronous satellite or ground based radar
 [NASA-CASE-GSC-10553-1] c07 N71-19854
 Polarization diversity monopulse tracking receiver design without radio frequency switches
 [NASA-CASE-IGS-03501] c09 N71-20864

Monopulse tracking system with antenna array of three radiators for deriving azimuth and elevation indications
 [NASA-CASE-IGS-01155] c10 N71-21483
 Plastic sphere for radar tracking and calibration
 [NASA-CASE-XLA-11154] c07 N72-21117

RADAR TRANSMITTERS

High resolution radar transmitting system for transmitting optical pulses to targets
 [NASA-CASE-NPO-11426] c07 N73-26119

RADIAL FLOW

Radial heat flux transformer for use in heating and cooling processes
 [NASA-CASE-NPO-10828] c33 N72-17948
 Axially and radially controllable magnetic bearing
 [NASA-CASE-GSC-11551-1] c37 N76-18459

RADIANCE

Method and apparatus for measuring shock layer radiation distribution about high velocity objects
 [NASA-CASE-XAC-02970] c14 N69-39896

RADIANT COOLING

Direct radiation cooling of linear beam collector tubes
 [NASA-CASE-INP-09227] c15 N69-24319
 High thermal emittance black surface coatings and process for applying to metal and metal alloy surfaces used in radiative cooling of spacecraft
 [NASA-CASE-XLA-06199] c15 N71-24875
 Method for attaching a fused-quartz mirror to a conductive metal substrate
 [NASA-CASE-MFS-23405-1] c26 N77-29260

RADIANT FLUX DENSITY

High intensity radiant energy pulse source for calibrating heat transfer gages with thermoluminescent shutter activation
 [NASA-CASE-ARC-10178-1] c09 N72-17152

RADIANT HEATING

High intensity heat and light unit containing quartz lamp elements protectively positioned to withstand severe environmental stress
 [NASA-CASE-XLA-00141] c09 N70-33312
 High temperature source of thermal radiation
 [NASA-CASE-XLE-00490] c33 N70-34545
 Refractory filament series circuitry for radiant heater
 [NASA-CASE-XLE-00387] c33 N70-34812
 Unfired ceramic insulation for protection from radiant heating environments
 [NASA-CASE-MFS-14253] c33 N71-24858
 Portable linear-focused solar thermal energy collecting system
 [NASA-CASE-NPO-13734-1] c44 N78-10554

RADIATION

Development of radiant energy sensor to detect the radiant energy wavelength bands from portions of radiating body
 [NASA-CASE-EBC-10174] c14 N72-25409
 Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
 [NASA-CASE-NPO-11493] c14 N73-12447
 Analog to digital converter for two-dimensional radiant energy array computers
 [NASA-CASE-GSC-11839-3] c60 N77-32731
 Memory device for two-dimensional radiant energy array computers
 [NASA-CASE-GSC-11839-2] c60 N78-10709

RADIATION ABSORPTION

NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
 [NASA-CASE-ARC-10802-1] c35 N75-30502
 Method for making an aluminum or copper substrate panel for selective absorption of solar energy
 [NASA-CASE-MFS-23518-1] c44 N79-11469

RADIATION COUNTERS

Particle detector for indicating incidence and energy of minute space particles
 [NASA-CASE-XLA-00135] c14 N70-33322
 Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
 [NASA-CASE-IGS-00466] c21 N70-34297
 Solid state device for mapping flux and power in nuclear reactor cores
 [NASA-CASE-XLE-00301] c14 N70-36808

SUBJECT INDEX

RADIATION SHIELDING

- Particle beam power density detection and measurement apparatus
[NASA-CASE-XLE-00243] c14 N70-38602
- Automatic baseline stabilization for ionization detector used in gas chromatograph
[NASA-CASE-XNP-03128] c10 N70-41991
- Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
- Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
- Apparatus for detecting particle emission lower than noise level of multiplier tube
[NASA-CASE-XLA-07813] c14 N72-17328
- Radiation or charged particle detector and amplifier
[NASA-CASE-NPO-12128-1] c14 N73-32317
- Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949
- Particle parameter analyzing system --- x-y plotter circuits and display
[NASA-CASE-XLE-06094] c33 N78-17293
- Method and means for helium/hydrogen ratio measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c35 N79-12416
- RADIATION DAMAGE**
- Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654
- Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-XGS-04047-2] c03 N72-11062
- Photomultiplier circuit including means for rapidly reducing the sensitivity thereof --- and protection from radiation damage
[NASA-CASE-ARC-10593-1] c33 N74-27682
- RADIATION DETECTORS**
- Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-MSC-12280] c27 N71-16348
- Detection instrument for light emitted from ATP biochemical reaction
[NASA-CASE-XGS-05534] c23 N71-16355
- Circuit design for determining amount of photomultiplier tube light detection utilizing variable current source and dark current signals of opposite polarity
[NASA-CASE-XMS-03478] c14 N71-21040
- Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880
- Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
- Nondispersive gas analysis using radiation detection for quantitative analysis
[NASA-CASE-ARC-10308-1] c06 N72-31141
- Radiation source tracker comprised of sectored matrix of detectors with output voltages corresponding to irradiance levels
[NASA-CASE-NPO-11686] c14 N73-25462
- Radiation or charged particle detector and amplifier
[NASA-CASE-NPO-12128-1] c14 N73-32317
- Mossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091
- High field CDS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088
- Flame detector operable in presence of proton radiation
[NASA-CASE-MFS-21577-1] c19 N74-29410
- Wide angle sun sensor --- consisting of cylinder, insulation and pair of detectors
[NASA-CASE-NPO-13327-1] c35 N75-23910
- Detector absorptivity measuring method and apparatus
[NASA-CASE-LAR-10907-1] c35 N76-29551
- RADIATION DISTRIBUTION**
- Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675
- RADIATION DOSAGE**
- Development of dosimeter for measuring absorbed dose of high energy ionizing radiation
[NASA-CASE-XLA-03645] c14 N71-20430
- Method for analyzing radiation sensitivity of integrated circuits
[NASA-CASE-NPO-14350-1] c33 N78-27330
- RADIATION EFFECTS**
- Method for temperature compensating semiconductor gages by exposure to high energy radiation
[NASA-CASE-XLA-04555-1] c14 N71-25892
- RADIATION HARDENING**
- Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential of field effect device
[NASA-CASE-GSC-11425-1] c76 N74-20329
- RADIATION MEASUREMENT**
- Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N73-12447
- RADIATION MEASURING INSTRUMENTS**
- Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432
- Infrared scanning system for maintaining spacecraft orientation with earth reference
[NASA-CASE-XLA-00120] c21 N70-33181
- Multiple wavelength radiation measuring instrument for determining hot body or gas temperature
[NASA-CASE-XLE-00011] c14 N70-41946
- Development of method for improving signal to noise ratio and accuracy of Wheatstone bridge type radiation measuring instrument
[NASA-CASE-XLA-02810] c14 N71-25901
- Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity
[NASA-CASE-NPO-11493] c14 N73-12447
- Phototransistor with base collector junction diode for integration into photo sensor arrays
[NASA-CASE-MFS-20407] c09 N73-19235
- Method and apparatus for measuring electromagnetic radiation
[NASA-CASE-LEW-11159-1] c14 N73-28488
- Design of gamma ray spectrometer for measurement of intense radiation using Compton scattering effect
[NASA-CASE-MFS-21441-1] c14 N73-30392
- Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949
- RADIATION MEDICINE**
- Method of producing I-123 --- by bombardment of cesium causing spallation
[NASA-CASE-LEW-11390-2] c25 N76-27383
- RADIATION PROTECTION**
- Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-XNP-01310] c33 N71-28852
- Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-MFS-20180] c16 N72-12440
- Photomultiplier circuit including means for rapidly reducing the sensitivity thereof --- and protection from radiation damage
[NASA-CASE-ARC-10593-1] c33 N74-27682
- RADIATION SHIELDING**
- Encapsulated heater forming hollow body for cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422
- Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure
[NASA-CASE-XLA-07424] c14 N71-18482
- Sealed housing for protecting electronic equipment against electromagnetic interference
[NASA-CASE-MSC-12168-1] c09 N71-18600
- Internal labyrinth and shield structure to improve electrical isolation of propellant feed source from ion thruster
[NASA-CASE-LEW-10210-1] c28 N71-26781
- Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893

RADIATION SOURCES

SUBJECT INDEX

Light shield and cooling apparatus --- high intensity ultraviolet lamp
[NASA-CASE-LAR-10089-1] c34 N74-23066

RADIATION SOURCES

Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-INP-03934] c09 N71-22985

Apparatus for obtaining isotropic irradiation on film emulsion from parallel radiation source
[NASA-CASE-MPS-20095] c24 N72-11595

Radiation source tracker comprised of sectorized matrix of detectors with output voltages corresponding to irradiance levels
[NASA-CASE-NPO-11686] c14 N73-25462

High powered arc electrodes --- producing solar simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913

Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318

Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

RADIATION SPECTRA

Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041

RADIATION THERAPY

A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796

RADIATION TOLERANCE

Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-IGS-04119] c18 N69-39979

Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607

Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-IGS-07801] c09 N71-12513

Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential
[NASA-CASE-GSC-11425-2] c76 N75-25730

RADIATIVE HEAT TRANSFER

Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
[NASA-CASE-XMS-05909-1] c14 N69-27459

Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
[NASA-CASE-XLE-03307] c33 N71-14035

Transient heat transfer gage for measuring total radiant intensity from far ultraviolet and ionized high temperature gases
[NASA-CASE-INP-09802] c33 N71-15641

Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-INP-02923] c28 N71-23081

RADIATORS

Development and characteristics of natural circulation radiator for use with nuclear power plants installed in lunar space stations
[NASA-CASE-XHQ-03673] c33 N71-29046

RADIO ANTENNAS

Low loss parasitic probe antenna for prelaunch tests of spacecraft antennas
[NASA-CASE-IKS-09348] c09 N71-13521

VHF/UHF parasitic probe antenna for spacecraft communication
[NASA-CASE-IKS-09340] c07 N71-24614

Development and characteristics of extensible dipole antenna using deformable tubular metallic strip element
[NASA-CASE-HQN-00937] c07 N71-28979

Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365

RADIO ASTRONOMY

Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-INP-09832] c30 N71-23723

RADIO BEACONS

RF beam center location method and apparatus for power transmission system

[NASA-CASE-NPO-13821-1] c44 N78-28594

RADIO COMMUNICATION

System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296

RADIO CONTROL

Radio frequency controlled solid state switch
[NASA-CASE-ARC-10136-1] c09 N72-22202

RADIO EQUIPMENT

System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296

RADIO FREQUENCIES

Helical coaxial resonator RF filter
[NASA-CASE-IGS-02816] c07 N69-24323

Automatic gain control amplifier system
[NASA-CASE-XMS-05307] c09 N69-24330

Method and apparatus for bowing of instrument panels to improve radio frequency shielded enclosure
[NASA-CASE-INP-09422] c07 N71-19436

Development of automatic frequency discriminators and control for phase lock loop providing frequency preset capabilities
[NASA-CASE-INP-08665] c10 N71-19467

System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-IGS-02610] c14 N71-23174

Radio frequency coaxial filter to provide dc isolation and low frequency signal rejection in audio range
[NASA-CASE-IGS-01418] c09 N71-23573

Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-INP-09830] c14 N71-26266

High efficiency transformerless amplitude modulator coupled to RF power amplifier
[NASA-CASE-GSC-10668-1] c07 N71-28430

Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569

Radio frequency source resistance measuring instruments of varied design
[NASA-CASE-NPO-11291-1] c14 N73-30388

Multichannel logarithmic RF level detector
[NASA-CASE-LAR-11021-1] c32 N76-14321

Ion and electron detector for use in an ICR spectrometer
[NASA-CASE-NPO-13479-1] c35 N77-10492

Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N79-14272

RADIO FREQUENCY DISCHARGE

Electric discharge for treatment of trace contaminants
[NASA-CASE-ARC-10975-1] c33 N79-15245

RADIO FREQUENCY INTERFERENCE

Radio frequency noise generator having microwave slow-wave structure in gas discharge plasma
[NASA-CASE-XER-11019] c09 N71-23598

System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982

Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

Systems and methods for determining radio frequency interference
[NASA-CASE-GSC-12150-1] c32 N79-11265

RADIO FREQUENCY SHIELDING

Gunn effect microwave diodes with RF shielding
[NASA-CASE-EBC-10119] c26 N72-21701

Process for making RF shielded cable connector assemblies and resulting structures
[NASA-CASE-GSC-11215-1] c09 N73-28083

RADIO RECEIVERS

Radio receiver with array of independently steerable antennas for deep space communication
[NASA-CASE-XLA-00901] c07 N71-10775

Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
[NASA-CASE-IGS-00740] c07 N71-23098

Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N79-14272

SUBJECT INDEX

RC CIRCUITS

- RADIO RECEPTION**
Radio frequency arraying method for receivers
[NASA-CASE-WPO-14328-1] c32 N79-14272
- RADIO RELAY SYSTEMS**
Satellite radio communication system with remote steerable antenna
[NASA-CASE-INP-02389] c07 N71-28900
Systems and methods for determining radio frequency interference
[NASA-CASE-GSC-12150-1] c32 N79-11265
- RADIO SIGNALS**
Erectable, inflatable, radio signal reflecting passive communication satellite
[NASA-CASE-ILA-00210] c30 N70-40309
Synchronous detection system for detecting weak radio astronomical signals
[NASA-CASE-INP-09832] c30 N71-23723
- RADIO SOURCES (ASTRONOMY)**
Conical scan tracking system employing a large antenna
[NASA-CASE-WPO-14009-1] c32 N79-13214
- RADIO STARS**
System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174
- RADIO TELEMETRY**
Digital telemetry system apparatus to reduce tape recorder wow and flutter noise during playback
[NASA-CASE-XGS-01812] c07 N71-23001
- RADIO TRANSMITTERS**
Vehicle locating system utilizing AM broadcasting station carriers
[NASA-CASE-WPO-13217-1] c32 N75-26194
Aircraft-mounted crash-activated transmitter device
[NASA-CASE-HPS-16609-3] c03 N76-32140
- RADIO WAVES**
Gunn effect microwave diodes with RF shielding
[NASA-CASE-ERC-10119] c26 N72-21701
- RADIOACTIVE ISOTOPES**
Thermally cascaded thermoelectric generator with radioisotopic heat source
[NASA-CASE-WPO-10753] c03 N72-26031
Protected isotope heat source --- for atmospheric reentry protection and heat transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876
- RADIOBIOLOGY**
Production of I-123 for use as radiopharmaceutical for low radiation exposure
[NASA-CASE-LEW-10518-1] c24 N72-33681
- RADIOGRAPHY**
Nondestructive radiographic tests of resistance welds
[NASA-CASE-INP-02588] c15 N71-18613
Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-HSC-14276-1] c52 N77-14737
- RADIOLYSIS**
Process for making anhydrous metal halides
[NASA-CASE-LEW-11860-1] c37 N76-18458
- RADIOMETERS**
Miniaturized radiometer for detecting low level thermal radiation
[NASA-CASE-ILA-04556] c14 N69-27484
Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-INP-09701] c14 N71-26475
Black body radiometer having isothermally surrounded cavity for ultraviolet, visible, and infrared radiation
[NASA-CASE-WPO-10810] c14 N71-27323
Thermoelectric radiometer using polymer film as capacitor
[NASA-CASE-ARC-10158-1] c14 N72-24477
Development of radiant energy sensor to detect the radiant energy wavelength bands from portions of radiating body
[NASA-CASE-ERC-10174] c14 N72-25409
Development of radiometric sensor to warn aircraft pilots of region of clear air turbulence along flight path
[NASA-CASE-ERC-10081] c14 N72-28437
Radiometric measuring system for solar activity and atmospheric attenuation and emission
[NASA-CASE-ERC-10276] c14 N73-26432
- Steady state thermal radiometers
[NASA-CASE-HPS-21108-1] c34 N74-27861
- RADIOSONDES**
Induction powered biological radiosonde --- for measuring intracranial pressure
[NASA-CASE-ARC-11120-1] c52 N77-23743
- RAIN**
Precipitation detector and mechanism for stopping and restarting machinery at initiation and cessation of rain
[NASA-CASE-ILA-02619] c10 N71-26334
- RANJET ENGINES**
Telescoping-spike supersonic nozzle for turbojet or ranjet engines
[NASA-CASE-ILE-00005] c28 N70-39899
Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168
- RAMPS (STRUCTURES)**
Automated multi-level vehicle parking system
[NASA-CASE-WPO-13058-1] c37 N77-22480
- RANDOM LOADS**
Fatigue testing device applying random discrete load levels to test specimen and applicable to aircraft structures
[NASA-CASE-ILA-02131] c32 N70-42003
- RANDOM NOISE**
Circuits for amplitude limiting of random noise inputs
[NASA-CASE-WPO-10169] c10 N71-24844
Digital servo control of random sound test excitation --- in reverberant acoustic chamber
[NASA-CASE-WPO-11623-1] c71 N74-31148
Random pulse generator
[NASA-CASE-HSC-14131-1] c33 N75-19515
Pseudo noise code and data transmission method and apparatus
[NASA-CASE-GSC-12017-1] c32 N77-30308
- RANGE (EXTREMES)**
Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339
- RANGE FINDERS**
Closed loop radio communication ranging system to determine distance between moving airborne vehicle and fixed ground station
[NASA-CASE-INP-01501] c21 N70-41930
Digital demodulator-correlator
[NASA-CASE-WPO-13982-1] c32 N79-14267
- RANGEFINDING**
Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-IHS-05454-1] c07 N71-12391
Spacecraft ranging system
[NASA-CASE-WPO-10066] c09 N71-18598
Binary coded sequential acquisition ranging system for distance measurements
[NASA-CASE-WPO-11194] c08 N72-25209
Loop transponder for regenerating code of au-type ranging system
[NASA-CASE-WPO-11707] c07 N73-25161
Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015
- RARE EARTH COMPOUNDS**
Including didymium hydrate in nickel hydroxide of positive electrode of storage batteries to increase ampere hour capacity
[NASA-CASE-XGS-03505] c03 N71-10608
- RARE GASES**
Inert gas metallic vapor laser
[NASA-CASE-WPO-13449-1] c36 N75-32441
- RAREFIED GASES**
Magnetically controlled plasma accelerator capable of ignition in low density gaseous environment
[NASA-CASE-ILA-00327] c25 N71-29184
- RATES (PER TIME)**
Apparatus and digital technique for coding rate data
[NASA-CASE-LAR-10128-1] c08 N73-20217
- RATS**
Micro-fluid exchange coupling apparatus --- a microrespirator to allow surgery on rats or mice
[NASA-CASE-ARC-11114-1] c52 N78-33717
- RC CIRCUITS**
RC transistor circuit to indicate each pulse of pulse train and occurrence of nth pulse
[NASA-CASE-INP-00906] c09 N70-41655

REACTION CONTROL

SUBJECT INDEX

Device utilizing RC rate generators for continuous slow speed measurement
[NASA-CASE-XMP-02966] c10 N71-24863

Digital data handling circuits for pulse amplifiers
[NASA-CASE-XNP-01068] c10 N71-28739

Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
[NASA-CASE-ARC-10042-2] c10 N72-11256

Active RC filter networks and amplifiers for deep space magnetic field measurement
[NASA-CASE-XAC-05462-2] c10 N72-17171

RC networks with voltage amplifier, RC input circuit, and positive feedback
[NASA-CASE-ARC-10020] c10 N72-17172

Multiloop RC active filter network with low parameter sensitivity and low amplifier gain
[NASA-CASE-ARC-10192] c09 N72-21245

Temperature control system comprised of wheatstone bridge with RC circuit
[NASA-CASE-NPO-11304] c14 N73-26430

Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520

REACTION CONTROL

Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160

REACTION WHEELS

Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082

Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
[NASA-CASE-GSC-10555-1] c21 N71-27324

REACTIVITY

Absorbing gas reactivity control system for minimizing power distribution and perturbation in nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597

REACTOR CORES

Simulated fuel assembly-type flow measurement apparatus for coolant flow in reactor core
[NASA-CASE-XLE-00724] c14 N70-34669

Solid state device for mapping flux and power in nuclear reactor cores
[NASA-CASE-XLE-00301] c14 N70-36808

Reactor heated in-core diodes for energy conversion
[NASA-CASE-NPO-10542] c09 N72-27228

REACTOR DESIGN

Non-equilibrium radiation nuclear reactor
[NASA-CASE-BQN-10841-1] c73 N78-19920

REACTOR MATERIALS

Zirconium modified nickel-copper alloy
[NASA-CASE-LFW-12245-1] c26 N77-20201

REACTOR PHYSICS

Non-equilibrium radiation nuclear reactor
[NASA-CASE-BQN-10841-1] c73 N78-19920

REACTOR TECHNOLOGY

Nuclear reactor control rod assembly with improved driving mechanism
[NASA-CASE-XLE-00298] c22 N70-34501

REACTORS

Liquid reactant feeder for arc assisted metal reduction reactor
[NASA-CASE-NPO-14382-1] c25 N78-22186

READOUT

Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864

System for checking status of several double-throw switches by readout indications
[NASA-CASE-XLA-08799] c10 N71-27272

Magneto-optic detection system with noise cancellation
[NASA-CASE-NPO-11954-1] c35 N78-29421

REAL TIME OPERATION

Respiratory analysis system to determine gas flow rate and frequency of respiration and expiration cycles in real time
[NASA-CASE-MSC-13436-1] c05 N73-32015

Real time moving scene holographic camera system
[NASA-CASE-MFS-21087-1] c35 N74-17153

Real time liquid crystal image converter
[NASA-CASE-LAR-11206-1] c74 N74-30118

Real time, large volume, moving scene holographic camera system

[NASA-CASE-MFS-22537-1] c35 N75-27328

Carbon monoxide monitor --- using real time operation
[NASA-CASE-MFS-22060-1] c35 N75-29380

Real time analysis of voiced sounds
[NASA-CASE-NFO-13465-1] c32 N76-31372

Real time reflectometer --- measurement of specular reflectance
[NASA-CASE-MFS-23118-1] c35 N77-31465

System for near real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N78-17529

Contour detector and data acquisition system for the left ventricular outline
[NASA-CASE-ARC-10985-1] c52 N79-10724

Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N79-14268

RECEIVERS

Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616

Improved phase lock loop for receiver in multichannel telemetry system with suppressed carrier
[NASA-CASE-NPO-11593-1] c07 N73-28012

Automatic carrier acquisition system for phase locked loop receiver
[NASA-CASE-NPO-11628-1] c07 N73-30113

Coherent receiver employing nonlinear coherence detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523

Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-MSC-14557-1] c32 N76-16249

Receiving and tracking phase modulated signals
[NASA-CASE-MSC-16170-1] c32 N77-12248

Wideband heterodyne receiver for laser communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346

Versatile transponder receiver
[NASA-CASE-NPO-14248-1] c32 N78-24402

RECONSTRUCTION

Method and means for recording and reconstructing holograms without use of reference beam
[NASA-CASE-ERC-10020] c16 N71-26154

RECORDING HEADS

Electromagnetic transducer recording head having a laminated core section and tapered gap
[NASA-CASE-NPO-10711-1] c35 N77-21392

RECORDING INSTRUMENTS

Weighing and recording device for obtaining precise automatic record of small changes in force
[NASA-CASE-XLA-02605] c14 N71-10773

Blood pressure measuring system for separately recording dc and ac pressure signals of Korotkoff sounds
[NASA-CASE-XMS-06061] c05 N71-23317

Helical recorder for multiple channel recording
[NASA-CASE-GSC-10614-1] c09 N72-11224

Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NPO-11317-2] c36 N74-13205

Holography utilizing surface plasmon resonances
[NASA-CASE-MFS-22040-1] c35 N74-26946

Measuring probe position recorder
[NASA-CASE-LAR-10806-1] c35 N74-32877

Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410

RECOVERABILITY

Ejectable underwater sound source recovery assembly
[NASA-CASE-LAR-10595-1] c35 N74-16135

RECOVERABLE LAUNCH VEHICLES

Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
[NASA-CASE-XMF-00389] c31 N70-34176

RECOVERABLE SPACECRAFT

Describing assembly for opening stabilizing and decelerating flaps of flight capsules used in space research
[NASA-CASE-XMF-03169] c31 N71-15675

A method and technique for installing light-weight fragile, high-temperature fiber

SUBJECT INDEX

REFLECTION

insulation --- sealing recoverable spacecraft
[NASA-CASE-HSC-16934-1] c24 N79-16923

RECOVERY PARACHUTES
Parachute system for lowering manned spacecraft
from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009

Development and operating principles of gas
generator for deploying recovery parachutes
from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N73-13898

RECTANGULAR PANELS
Rectangular solar cell stacked panels to
generate electrical power aboard spacecraft
[NASA-CASE-NPO-11771] c03 N73-20040

Composite sandwich lattice structure
[NASA-CASE-LAR-11898-1] c24 N78-10214

RECTIFIERS
Lithium drifted silicon radiation detector with
gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191

Power control switching circuit using low
voltage semiconductor controlled rectifiers
for high voltage isolation
[NASA-CASE-XNP-02713] c10 N69-39888

Precision full wave rectifier circuit for
rectifying incoming electrical signals having
positive or negative polarity with only
positive output signals
[NASA-CASE-ARC-10701-1] c09 N71-33109

Voltage amplitude-responsive trigger circuit
with silicon controlled rectifier
[NASA-CASE-GSC-10221-1] c09 N72-23171

Dc to ac to dc converter with transistor driven
synchronous rectifiers
[NASA-CASE-GSC-11126-1] c09 N72-25253

REDUCED GRAVITY
Reduced gravity liquid configuration simulator
to study propellant behavior in rocket fuel
tanks
[NASA-CASE-XLE-02624] c12 N69-39988

Apparatus for measuring human body mass in zero
or reduced gravity environment
[NASA-CASE-XMS-03371] c05 N70-42000

Cable suspension and inclined walkway system for
simulating reduced or zero gravity environments
[NASA-CASE-XLA-01787] c11 N71-16028

Development of restraint system for securing
personnel to ergometer while exercising under
weightless conditions
[NASA-CASE-MFS-21046-1] c14 N73-27377

REDUCTION (CHEMISTRY)
Producing metal powders of controlled particle
size by reducing oxide using reactive metal
vapor in vacuum
[NASA-CASE-XLE-06461] c17 N72-22530

Process for making anhydrous metal halides
[NASA-CASE-LEW-11860-1] c37 N76-18458

Electrochemical cell for rebalancing redox flow
system
[NASA-CASE-LEW-13150-1] c44 N78-25554

REDUNDANT COMPONENTS
Redundant memory for enhanced reliability of
digital data processing system
[NASA-CASE-GSC-10564] c10 N71-29135

Redundant motor drive system
[NASA-CASE-MFS-23777-1] c37 N78-28460

Redundant disc
[NASA-CASE-LEW-12496-1] c07 N78-33101

REELS
Method and apparatus for measuring web material
wound on a reel
[NASA-CASE-GSC-11902-1] c38 N77-17495

REENTRY COMMUNICATION
Electrostatic modulator for communicating
through plasma sheath formed around spacecraft
during reentry
[NASA-CASE-XLA-01400] c07 N70-41331

Method and apparatus for communicating through
ionized layer of gases surrounding spacecraft
during reentry into planetary atmospheres
[NASA-CASE-XLA-01127] c07 N70-41372

Reentry communication by injection of water
droplets into plasma layer surrounding space
vehicle
[NASA-CASE-XLA-01552] c07 N71-11284

REENTRY SHIELDING
Transpirationally cooled heat ablation system
for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-02677] c31 N70-42075

Method and apparatus for fabrication of heat
insulating and ablative reentry structure
[NASA-CASE-XMS-02009] c33 N71-20834

Ablative heat shield for protection from
aerodynamic heating of reentry spacecraft
[NASA-CASE-HSC-12143-1] c33 N72-17947

Protected isotope heat source --- for
atmospheric reentry protection and heat
transmission to spacecraft
[NASA-CASE-LEW-11227-1] c73 N75-30876

Fibrous refractory composite insulation
[NASA-CASE-ARC-11169-1] c24 N78-32189

REENTRY TRAJECTORIES
Aerodynamic configuration of reentry vehicle
heat shield to provide longitudinal and
directional stability at hypersonic velocities
[NASA-CASE-XMS-04142] c31 N70-41631

REENTRY VEHICLES
Leading edge design for hypersonic reentry
vehicles
[NASA-CASE-XLA-00165] c31 N70-33242

Delta winged, manned reentry vehicle capable of
horizontal glide landing at low speeds
[NASA-CASE-XLA-00241] c31 N70-37986

Telespectrograph for analyzing upper atmosphere
by tracking bodies reentering atmosphere at
high velocities
[NASA-CASE-XLA-03273] c14 N71-18699

Ablation sensor for measuring surface ablation
rate of material on vehicles entering earth's
atmosphere on entry into planetary atmospheres
[NASA-CASE-XLA-01791] c14 N71-22991

Design of ring wing vehicle of high
drag-to-weight ratio to withstand reentry
stress into low density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315

Development of auxiliary lifting system to
provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257

Development and operating principles of gas
generator for deploying recovery parachutes
from space capsules during atmospheric entry
[NASA-CASE-LAR-10549-1] c31 N73-13898

Three-component ceramic coating for silica
insulation
[NASA-CASE-HSC-14270-2] c27 N76-23426

REFERENCE SYSTEMS
Automatic frequency control device for providing
frequency reference for voltage controlled
oscillator
[NASA-CASE-KSC-10393] c09 N72-21247

Magnetic heading reference
[NASA-CASE-LAR-11387-2] c04 N77-19056

REFINING
Helium refining by superfluidity
[NASA-CASE-XNP-00733] c06 N70-34946

Coal desulfurization
[NASA-CASE-NPO-14272-1] c25 N78-33164

REFLECTANCE
Optical characteristics measuring apparatus
[NASA-CASE-XNP-08840] c23 N71-16365

Device for determining acceleration of gravity
by interferometric measurement of travel of
falling body
[NASA-CASE-XNP-05844] c14 N71-17585

Highly stable optical mirror assembly optimizing
image quality of light diffraction patterns
[NASA-CASE-EEC-10001] c23 N71-24868

REFLECTED WAVES
Device and method for determining X ray
reflection efficiency, scattering properties,
and surface finish of optical surfaces
[NASA-CASE-MFS-20243] c23 N73-13662

Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028

Reflected-wave maser --- low noise amplifier
[NASA-CASE-NPO-13490-1] c36 N76-31512

REFLECTING TELESCOPES
Anastigmatic three-mirror telescope
[NASA-CASE-MFS-23675-1] c89 N79-10969

REFLECTION
Vacuum preparation of zinc titanate pigment
resistant to loss of reflective properties
[NASA-CASE-MFS-13532] c18 N72-17532

Method and apparatus for compensating reflection
losses in a path length modulated
absorption-absorption trace gas detector ---
for determining density of gas
[NASA-CASE-ARC-10631-1] c74 N76-20958

REFLECTOMETERS

SUBJECT INDEX

REFLECTOMETERS

- Ellipsoidal mirror reflector for measuring reflectance
[NASA-CASE-IGS-05291] c23 N71-16341
- Real time reflectometer --- measurement of specular reflectance
[NASA-CASE-MPS-23118-1] c35 N77-31465
- Visible and infrared polarization ratio spectroradiometer
[NASA-CASE-LAR-12285-1] c35 N78-32398

REFLECTORS

- Method of compactly packaging centrifugally expandable lightweight flexible reflector satellite
[NASA-CASE-XLA-00138] c31 N70-37981
- Antenna design with self erecting mesh reflector
[NASA-CASE-IGS-09190] c31 N71-16102
- Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
[NASA-CASE-IGS-08269] c23 N71-26206
- Conical reflector antenna with feed approximating line source
[NASA-CASE-NPO-10303] c07 N72-22127
- Target acquisition antenna feed with reflector system
[NASA-CASE-GSC-10064-1] c10 N72-22235
- Multipurpose microwave antenna, employing dish reflector with plural coaxial horn feeds
[NASA-CASE-NPO-11268] c07 N72-25174
- Characteristics of microwave antenna with conical reflectors to generate plane wave front
[NASA-CASE-NPO-11661] c07 N73-14130
- Schlieren system employing antiparallel reflector in the forward direction
[NASA-CASE-ABC-10971-1] c09 N76-26224
- Non-tracking solar energy collector system
[NASA-CASE-NPO-13813-1] c44 N78-31526

REFRACTIVITY

- The 2 deg/90 deg laboratory scattering photometer --- particulate refractivity in hydrosols
[NASA-CASE-GSC-12088-1] c74 N78-13874

REFRACTOMETERS

- Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628

REFRACTORY MATERIALS

- Test apparatus for determining mechanical properties of refractory materials at high temperatures in vacuum or inert atmospheres
[NASA-CASE-XLE-00335] c14 N70-35368
- Method for producing refractory molybdenum disilicides
[NASA-CASE-XMS-00370] c17 N71-20941
- Prestressed rocket nozzle with ceramic inner rings and refractory metal outer rings
[NASA-CASE-XNP-02888] c18 N71-21068
- Hydrostatic extrusion of refractory materials using simple press
[NASA-CASE-NPO-10811] c15 N71-34425
- Semiconductor device manufacture using refractory dielectrics as diffusant masks and interconnection insulating materials
[NASA-CASE-XER-08476-1] c26 N72-17820
- Electric furnace for vacuum and zero gravity melting of high melting point materials during earth orbit
[NASA-CASE-MPS-20710] c11 N72-23215
- High temperature resistant cermet and ceramic compositions --- for thermal resistant insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302
- Fibrous refractory composite insulation
[NASA-CASE-ABC-11169-1] c24 N78-32189
- High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-2] c27 N79-14213
- A method and technique for installing light-weight fragile, high-temperature fiber insulation --- sealing recoverable spacecraft
[NASA-CASE-MSC-16934-1] c24 N79-16923
- A method of making high temperature seals
[NASA-CASE-MSC-16973-1] c37 N79-17224

REFRACTORY METALS

- Refractory filament series circuitry for radiant heater
[NASA-CASE-XLE-00387] c33 N70-34812
- Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders

- [NASA-CASE-LEW-10393-1] c17 N71-15468
 - Multilayer porous refractory metal ionizer design with thick, porous, large-grain substrates and thin, porous micron-grain substrates
[NASA-CASE-XNP-04338] c17 N71-23046
 - Brazing alloy adapted for brazing corrosion resistant steel to refractory metals, also for brazing refractory metals to other refractory metals
[NASA-CASE-XNP-03063] c17 N71-23365
 - Development and characteristics of thermal radiation shielding of refractory metal foil used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145
 - Production of high strength refractory compounds and microconstituents into refractory metal matrix
[NASA-CASE-XLE-03940] c18 N71-26153
 - Silicide coating process and composition for protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040
 - Development of procedure for improved distribution of refractory compounds and micro-constituents in refractory metal matrix
[NASA-CASE-XLE-03940-2] c17 N72-28536
 - Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
[NASA-CASE-LEW-11179-1] c27 N76-16229
 - Method of making an apertured casting --- using duplicate mold
[NASA-CASE-LEW-11169-1] c37 N76-23570
- REFRIGERATING**
- Heat exchanger and decontamination system for multistage refrigeration unit
[NASA-CASE-NPO-10634] c23 N72-25619
- REFRIGERATING MACHINERY**
- Gas balancing, cryogenic refrigeration apparatus with Joule-Thomson valve assembly
[NASA-CASE-NPO-10309] c15 N69-23190
 - Method and apparatus for producing very low temperature refrigeration based on gas pressure balance
[NASA-CASE-XNP-08877] c15 N71-23025
 - Dual solid cryogenics for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725
 - Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590
- REFRIGERATORS**
- Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components
[NASA-CASE-XNP-00920] c15 N71-15906
 - Helium refrigerator
[NASA-CASE-NPO-13435-1] c31 N76-14284
 - Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode
[NASA-CASE-GSC-12168-1] c31 N79-17029
- REGENERATION (ENGINEERING)**
- Switching circuit with regeneratively connected transistors eliminating power consumption when not in use
[NASA-CASE-XNP-02654] c10 N70-42032
 - Direct current electromotive system for regenerative braking of electric motor
[NASA-CASE-XNP-01096] c10 N71-16030
 - Free-piston regenerative hot gas hydraulic engine
[NASA-CASE-LEW-12274-1] c37 N79-10426
- REGENERATIVE COOLING**
- Metal ribbon wrapped outer wall for regeneratively cooled combustion chamber
[NASA-CASE-XLE-00164] c15 N70-36411
 - Fabrication method for lightweight regeneratively cooled combustion chamber of channel construction
[NASA-CASE-XLE-00150] c28 N70-41818
 - Regenerative cooling system for small rocket engine having restart capability and using noncryogenic hypergolic propellants
[NASA-CASE-XLE-00685] c28 N70-41992
 - Regenerative cooling system for rocket combustion chamber using coolant tubes in convergent-divergent nozzle
[NASA-CASE-XLE-04857] c28 N71-23968

SUBJECT INDEX

REMOTE CONTROL

- Thermocouple apparatus for measuring wall temperatures in regeneratively cooled rocket engines having thin walled cooling passages
[NASA-CASE-XLE-05230-2] c14 N73-13417
- REGENERATIVE FUEL CELLS**
Electrolytically regenerative hydrogen-oxygen fuel cells
[NASA-CASE-XLE-04526] c03 N71-11052
- REGENERATORS**
Loop transponder for regenerating code of mu-type ranging system
[NASA-CASE-NPO-11707] c07 N73-25161
- REGISTERS (COMPUTERS)**
Data processor with plural register stages for selectively interconnecting with each other to effect multiplicity of operations
[NASA-CASE-GSC-10186] c08 N71-33110
Priority interrupt system --- comprised of four registers
[NASA-CASE-NPO-13067-1] c60 N76-18800
- REINFORCED PLASTICS**
Process for developing filament reinforced plastic tubes used in research and development programs
[NASA-CASE-LAR-10203-1] c15 N72-16330
Reinforced structural plastics
[NASA-CASE-LEW-10199-1] c27 N74-23125
- REINFORCEMENT (STRUCTURES)**
Reinforcing beam system for highly flexible diaphragms in valves or pressure switches
[NASA-CASE-INP-01962] c32 N70-41370
Fabrication of light weight panel structure using pairs of elongate hollow ribs of semicircular configuration
[NASA-CASE-LAR-11052-1] c32 N73-13929
- REINFORCING FIBERS**
High strength reinforced metallic composites for applications over wide temperature range
[NASA-CASE-XLE-02428] c17 N70-33288
Method for producing fiber reinforced metallic composites with high strength and elasticity over wide temperature range
[NASA-CASE-XLE-00231] c17 N70-38198
Description of method for producing metallic composites reinforced with ceramic and refractory hard metals that are fibered in place
[NASA-CASE-XLE-03925] c18 N71-22894
Production and application of sprayable fiber reinforced ablation material
[NASA-CASE-XLA-04251] c18 N71-26100
Method of preparing graphite reinforced aluminum composite
[NASA-CASE-NPS-21077-1] c24 N75-28135
Fuselage structure using advanced technology metal matrix fiber reinforced composites
[NASA-CASE-LAR-11688-1] c05 N78-18045
Ceramic fiber insulating material and method of producing same --- aircraft construction materials
[NASA-CASE-HSC-14795-2] c24 N78-25138
- RELAXATION OSCILLATORS**
Voltage controlled, variable frequency relaxation oscillator with MOSFET variable current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882
- RELAY SATELLITES**
Earth satellite relay station for frequency multiplexed voice transmission
[NASA-CASE-GSC-10118-1] c07 N71-24621
- RELEASING**
Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
Quick-release coupling for fueling rocket vehicles with cryogenic propellants
[NASA-CASE-XKS-01985] c15 N71-10782
Design and development of release mechanism for spacecraft components, releasable despin weights, and extensible gravity booms
[NASA-CASE-IGS-08718] c15 N71-24600
Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XHS-10660-1] c15 N71-25975
Delayed simultaneous appendage release mechanism for use on spacecraft equipped with despin mechanisms and releasable components
[NASA-CASE-GSC-10814-1] c03 N73-20039
- RELIABILITY ANALYSIS**
Development of computer program for estimating reliability of self-repair and fault-tolerant systems with respect to selected system and mission parameters
[NASA-CASE-NPO-13086-1] c15 N73-12495
- RELIABILITY ENGINEERING**
Improving load capacity and fatigue life of rolling element systems in rockets and missiles
[NASA-CASE-XLE-02999] c15 N71-16052
Gage for quality control of sealing surfaces of threaded boss
[NASA-CASE-INP-04966] c14 N71-17658
Reliability of automatic refilling valving device for cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453
Reliability of electrical connectors after heat sterilization
[NASA-CASE-NPO-10694] c09 N72-20200
Reliable electrical element heater using plural wire system and backup power sources
[NASA-CASE-NPS-21462-1] c33 N74-14935
Hollow rolling element bearings
[NASA-CASE-LEW-11087-3] c37 N74-21064
- RELIEF VALVES**
Relief valve to permit slow and fast bleeding rates at difference pressure levels
[NASA-CASE-XHS-05894-1] c15 N69-21924
Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
Redundant hydraulic control system for actuators with three main valve combination
[NASA-CASE-NPS-20944] c15 N73-13466
- REMOTE CONTROL**
Oscillatory electromagnetic mirror drive system for horizon scanners
[NASA-CASE-XLA-03724] c14 N69-27461
Stage separation using remote control release of joint with explosive insert
[NASA-CASE-XLA-02854] c15 N69-27490
Power controlled bimetallic electromechanical actuator for accurate, timely, and reliable response to remote control signal
[NASA-CASE-INP-09776] c09 N69-39929
Two component valve assembly for cryogenic liquid transfer regulation
[NASA-CASE-XLE-00397] c15 N70-36492
Remotely actuated quick disconnect mechanism for umbilical cables
[NASA-CASE-XLA-00711] c03 N71-12258
Remotely actuated quick disconnect for tubular umbilical conduits used to transfer fluids from ground to rocket vehicle
[NASA-CASE-XLA-01396] c03 N71-12259
Remote control device operated by movement of finger tips for manual control of spacecraft attitude
[NASA-CASE-XAC-02405] c09 N71-16089
Satellite radio communication system with remote steerable antenna
[NASA-CASE-INP-02389] c07 N71-28900
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
Solid state remote circuit selector switching circuit
[NASA-CASE-LEW-10387] c09 N72-22201
Design and development of multichannel laser remote control system using modulated helium-neon laser as transmitter and light collector as receiving antenna
[NASA-CASE-LAR-12031-1] c16 N73-16536
Cooperative multiaxis sensor for teleoperation of article manipulating apparatus
[NASA-CASE-NPO-13386-1] c54 N75-27758
Remotely operable articulated manipulator
[NASA-CASE-NPS-22707-1] c37 N76-15457
Remote manipulator system
[NASA-CASE-NPS-22022-1] c37 N76-15460
End effector device --- for manipulators
[NASA-CASE-NPS-23692-1] c54 N78-19773
Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N79-11315
Simulator method and apparatus for practicing the mating of an observer-controlled object with a target
[NASA-CASE-NPS-23052-2] c74 N79-13855

REMOTE HANDLING

SUBJECT INDEX

Terminal guidance sensor system
[NASA-CASE-NPO-14521-1] c54 N79-20746

REMOTE HANDLING
Manipulator for remote handling in zero gravity environment
[NASA-CASE-MPS-14405] c15 N72-28495
Apparatus for remote handling of materials --- mixing or analyzing dangerous chemicals
[NASA-CASE-LAR-10634-1] c37 N74-18123
An improved controller arm for a remotely related slave arm
[NASA-CASE-ARC-11052-1] c54 N77-30751
Anthropomorphic master/slave manipulator system
[NASA-CASE-ARC-10756-1] c54 N77-32721
Coupling device for moving vehicles
[NASA-CASE-GSC-12322-1] c37 N78-25429

REMOTE SENSORS
Passive optical wind and turbulence remote detection system
[NASA-CASE-MHP-14032] c20 N71-16340
Ionization control system design for monitoring separately located ion gage pressures on vacuum chambers
[NASA-CASE-XLE-00787] c14 N71-21090
Flow angle sensor and remote readout system for use with cryogenic fluids
[NASA-CASE-XLE-04503] c14 N71-24864
Time synchronization system for synchronizing clocks at remote locations with master clock using moon reflected coded signals
[NASA-CASE-NPO-10143] c10 N71-26326
Development of radiometric sensor to warn aircraft pilots of region of clear air turbulence along flight path
[NASA-CASE-ERC-10081] c14 N72-28437
Development of electronic detection system for remotely determining number and movement of enemy personnel
[NASA-CASE-ARC-10097-2] c07 N73-25160
Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver
[NASA-CASE-MPS-21470-1] c44 N74-19870
Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521
Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524
Focused laser Doppler velocimeter
[NASA-CASE-MPS-23178-1] c35 N77-10493
Wind measurement system
[NASA-CASE-MPS-23362-1] c47 N77-10753
Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410
Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367
Remote sensing of vegetation and soil using microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529
Fluid sample collection and distribution system
[NASA-CASE-MSC-16841-1] c51 N78-22590
Remote water monitoring system
[NASA-CASE-LAR-11973-1] c35 N78-27384
Radar target remotely sensing hydrological phenomena
[NASA-CASE-LAR-12344-1] c43 N78-33511
Time delay and integration detectors using charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262
A system for displaying at a remote station data generated at a central station and for powering the remote station from the central station
[NASA-CASE-GSC-12411-1] c33 N79-14308

REMOTELY PILOTED VEHICLES
Rotating launch device for a remotely piloted aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076

REMOVAL
Catalyst bed element removing tool
[NASA-CASE-XFR-00811] c15 N70-36901

REPEATERS
Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773

REFLACING
Indexing mechanism for cathode array

substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182

RESCUE OPERATIONS
Backpack carrier with retractable legs suitable for lunar exploration and convertible to rescue vehicle
[NASA-CASE-LAR-10056] c05 N71-12351
Development and characteristics of rescue litter with inflatable flotation device for water rescue application
[NASA-CASE-XMS-04170] c05 N71-22748
High visibility air sea rescue panel
[NASA-CASE-MSC-12564-1] c54 N76-15792
Method of locating persons in distress --- by using radar imagery from radar reflectors
[NASA-CASE-LAR-11390-1] c32 N77-21267
High visibility air sea rescue panel
[NASA-CASE-MSC-12564-2] c03 N78-25070

RESEARCH AND DEVELOPMENT
Process for developing filament reinforced plastic tubes used in research and development programs
[NASA-CASE-LAR-10203-1] c15 N72-16330

RESEARCH PROJECTS
Driver for solar cell I-V characteristic plots
[NASA-CASE-NPO-14096-1] c44 N78-28625

RESEARCH VEHICLES
Lunar landing flight research vehicle
[NASA-CASE-XPR-00929] c31 N70-34966
Velocity limiting safety system for motor driven research vehicle
[NASA-CASE-XIA-07473] c15 N71-24895

RESIDUAL STRESS
Miniature solid state, direction sensitive, stress transducer design with bonded semiconductive piezoresistive element for sensing residual stresses
[NASA-CASE-XNP-02983] c14 N71-21091
Manufacturing process for making perspiration resistant-stress resistant biopotential electrode
[NASA-CASE-MSC-90153-2] c05 N72-25120

RESILIENCE
Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XLA-08254] c14 N71-26161

RESIN BONDING
Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients
[NASA-CASE-XLA-01262] c15 N71-21404
Covered silicon solar cells and method of manufacture --- with polymeric films
[NASA-CASE-LEW-11065-2] c44 N76-14600

RESINS
Modification of polyurethanes with alkyl halide resins, inorganic salts, and encapsulated volatile and reactive halogen for fuel fire control
[NASA-CASE-ARC-10098-1] c06 N71-24739
Development of process for bonding resinous body in cavities of honeycomb structures
[NASA-CASE-MSC-12357] c15 N73-12489
Resin for protecting p-n semiconductor junction surface
[NASA-CASE-ERC-10339-1] c18 N73-30532
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150
Method of cross-linking polyvinyl alcohol and other water soluble resins
[NASA-CASE-LEW-13103-1] c25 N79-14172

RESISTANCE
Manufacturing process for making perspiration resistant-stress resistant biopotential electrode
[NASA-CASE-MSC-90153-2] c05 N72-25120
Variable resistance constant tension and lubrication device --- using oil-saturated leather wiper
[NASA-CASE-KSC-10723-1] c37 N75-13265

RESISTANCE HEATING
High resistance cross flow heat exchangers for electrothermal rocket engines
[NASA-CASE-XLE-01783] c28 N70-34175

RESISTORS
High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814

- Resistive anode image converter
[NASA-CASE-HQN-10876-1] c33 N76-27473
- RESOLUTION**
Conversion system for increasing resolution of analog to digital converters
[NASA-CASE-IAC-00404] c08 N70-40125
Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
[NASA-CASE-IGS-08269] c23 N71-26206
- RESOLVERS**
Differential phase shift keyed signal resolver
[NASA-CASE-MSC-14066-1] c33 N74-27705
- RESONANCE**
Optically selective, acoustically resonant gas detecting transducer
[NASA-CASE-ARC-10639-1] c35 N78-13400
- RESONANT FREQUENCIES**
Vibrating element electrometer producing high conversion gain by input current control of elements resonant frequency displacement amplitude
[NASA-CASE-IAC-02807] c09 N71-23021
Quantitative liquid measurements in container by resonant frequencies
[NASA-CASE-XNP-02500] c18 N71-27397
Development of electrical circuit for suppressing oscillations across inductor operating in resonant mode
[NASA-CASE-ERC-10403-1] c10 N73-26228
CW ultrasonic bolt tensioning monitor
[NASA-CASE-LAR-12016-1] c39 N78-15512
Microbalance --- for measuring particle mass
[NASA-CASE-MSC-11242] c35 N78-17358
- RESONATORS**
Selective bandpass resonators using bandstop resonator pairs for microwave frequency operation
[NASA-CASE-GSC-10990-1] c09 N73-26195
- RESPIRATION**
Respiration analyzing method and apparatus for determining subjects oxygen consumption in aerospace environments
[NASA-CASE-IPR-08403] c05 N71-11202
- RESPIRATORS**
Transducer for monitoring oxygen flow in respirator
[NASA-CASE-FRC-10012] c14 N72-17329
Micro-fluid exchange coupling apparatus --- a microrespirator to allow surgery on rats or mice
[NASA-CASE-ARC-11114-1] c52 N78-33717
- RESPIRATORY RATE**
Flowmeters for sensing low fluid flow rate and pressure for application to respiration rate studies
[NASA-CASE-FRC-10022] c12 N71-26546
Respiratory analysis system to determine gas flow rate and frequency of respiration and expiration cycles in real time
[NASA-CASE-MSC-13436-1] c05 N73-32015
Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings
[NASA-CASE-MPS-21415-1] c52 N74-20728
- RESPIROMETERS**
Metabolic analyzer --- for measuring metabolic rate and breathing dynamics of human beings
[NASA-CASE-MPS-21415-1] c52 N74-20728
- RESPONSES**
System for monitoring condition responsive devices by using frequency division multiplex technique
[NASA-CASE-RSC-10521] c07 N73-20176
- RESTARTABLE ROCKET ENGINES**
Collapsible auxiliary tank for restarting liquid propellant rocket motors under zero gravity
[NASA-CASE-XNP-01390] c28 N70-41275
Regenerative cooling system for small rocket engine having restart capability and using noncryogenic hypergolic propellants
[NASA-CASE-XLE-00685] c28 N70-41992
- RESUSCITATION**
Pulmonary resuscitation method and apparatus with adjustable pressure regulator
[NASA-CASE-XNS-01115] c05 N70-39922
- RETAINING**
A floating nut retention system
[NASA-CASE-MSC-16938-1] c37 N78-32431
- RETARDING**
Ablative resins used for retarding regression in ablative material
[NASA-CASE-XLE-05913] c33 N71-14032
- RETICLES**
Optical tracker with pair of FM reticles having patterns 90 deg out of phase
[NASA-CASE-IGS-05715] c23 N71-16100
Method for producing reticles for use in outer space
[NASA-CASE-GSC-11188-2] c21 N73-19630
Production method of star tracking reticles for transmitting in visible and near ultraviolet regions
[NASA-CASE-GSC-11188-1] c14 N73-32320
Formation of star tracking reticles
[NASA-CASE-GSC-11188-3] c74 N74-20008
Star scanner --- with a reticle with a pair of slits having differing separation
[NASA-CASE-GSC-11569-1] c89 N74-30886
- RETRACTABLE EQUIPMENT**
Retractable runway lights
[NASA-CASE-XLA-00119] c11 N70-33329
Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
[NASA-CASE-XNP-07587] c15 N71-18701
Antenna deployment mechanism --- retractable spacecraft antennas
[NASA-CASE-GSC-12331-1] c37 N78-32436
- RETROFIRING**
Visual target luminaires for retrofire attitude control
[NASA-CASE-XMS-12158-1] c31 N69-27499
Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
[NASA-CASE-XMS-03792] c14 N70-41812
- RETROREFLECTION**
Servo system for retroreflector of Michelson interferometer
[NASA-CASE-NPO-10300] c14 N71-17662
Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395
- RETROCKET ENGINES**
Steerable solid propellant rocket motor adapted to effect payload orientation as multistage rocket stage or reduce velocity as retrorocket
[NASA-CASE-XNP-00234] c28 N70-38645
- REUSABLE SPACECRAFT**
Recoverable, reusable single stage booster capable of injecting large payloads into circular earth orbit
[NASA-CASE-XNP-01973] c31 N70-41588
Spacecraft configurations and aerodynamic characteristics of space shuttle systems with two reusable stages
[NASA-CASE-MSC-12433] c31 N73-14854
- REUSE**
Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376
- REVERSED FLOW**
Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLF-00170] c15 N70-36412
Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
Positive locking check valve for stopping reversed flow
[NASA-CASE-XMS-09310] c15 N71-22706
Reverse pitch fan with divided splitter
[NASA-CASE-LEW-12760-1] c07 N77-17059
- REYNOLDS NUMBER**
Wind tunnel test section for simulating high Reynolds number over transonic speed range
[NASA-CASE-MPS-20509] c11 N72-17183
- REYNOLDS STRESS**
System for measuring Reynolds in a turbulently flowing fluid --- signal processing
[NASA-CASE-ARC-10755-2] c34 N76-27517
- RHENIUM**
Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12050-1] c35 N77-32454
- RIBBON PARACHUTES**
System and method for refurbishing and processing parachutes
[NASA-CASE-RSC-11042-1] c02 N78-22026
- RIBBONS**
Metal ribbon wrapped outer wall for

- regeneratively cooled combustion chamber.
[NASA-CASE-XLE-00164] c15 N70-36411
- Device for bending metal ribbon or wire
[NASA-CASE-XLA-05966] c15 N72-12408
- Controlled diffusion reaction process for
masking substrate of twisted multifilament
superconductive ribbon
[NASA-CASE-LEW-11726-1] c26 N73-26752
- A method of growing a ribbon crystal
particularly suited for facilitating automated
control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952
- A method and means for growing ribbon crystals
without subjecting the crystals to thermal
shock-induced strains
[NASA-CASE-NPO-14298-1] c76 N79-10917
- An improved apparatus for use in the production
of ribbon-shaped crystals from a silicon melt
[NASA-CASE-NPO-14297-1] c76 N79-10918
- Method of controlling defect orientation in
silicon crystal ribbon growth
[NASA-CASE-NPO-13918-1] c76 N79-11920
- Photomechanical transducer --- using thin strips
of photoabsorptive metal or polymeric film
with strain gages
[NASA-CASE-NPO-14363-1] c76 N79-14908
- Solar array strip and a method for forming the
same
[NASA-CASE-NPO-13652-1] c44 N79-17314
- RIBOFLAVIN**
Bioassay of flavin coenzymes
[NASA-CASE-GSC-10565-1] c06 N72-25149
- RIBS (SUPPORTS)**
Aeroflexible wing structure with air scoop for
inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
- Fabrication of light weight panel structure
using pairs of elongate hollow ribs of
semicircular configuration
[NASA-CASE-LAR-11052-1] c32 N73-13929
- RICE**
Rice preparation process consisting of cooking,
two freezing-thawing cycles, and then freeze
drying
[NASA-CASE-MSC-13540-1] c05 N72-33096
- RIGID ROTORS**
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029
- RIGID STRUCTURES**
Pneumatic mechanism for releasing hook and loop
fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
- Storage stable, thermally activated foaming
compositions for erecting and rigidizing
mechanisms of thin sheet solar collectors
[NASA-CASE-LAR-10373-1] c18 N71-26155
- Adjustable rigid mount for trihedral mirror
formed of alloy with small coefficient of
thermal expansion supporting screws and
spring-biased plates
[NASA-CASE-XNP-08907] c23 N71-29123
- Folding structure fabricated of rigid panels
[NASA-CASE-XHQ-02146] c18 N75-27040
- Telescoping columns --- parabolic antenna support
[NASA-CASE-LAR-12195-1] c37 N78-33446
- RIGID WINGS**
Deployment system for flexible wing with rigid
superstructure
[NASA-CASE-XLA-01220] c02 N70-41863
- RING CURRENTS**
Design of transistorized ring counter circuit
with special steering and triggering circuits
[NASA-CASE-XGS-03095] c09 N69-27463
- RING STRUCTURES**
Reversible ring counter using cascaded single
silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
- Nonreusable energy absorbing device comprising
ring member with plurality of recesses,
cutting members, and guide member mounted in
each recess
[NASA-CASE-XNP-10040] c15 N71-22877
- Phase-locked servo system --- for synchronizing
the rotation of slip ring assembly
[NASA-CASE-MFS-22073-1] c33 N75-13139
- Laser system with an antiresonant optical ring
[NASA-CASE-BQW-10844-1] c36 N75-19653
- Collapsible corrugated horn antenna
[NASA-CASE-LAR-11745-1] c32 N77-24339
- Helmet latching and attaching ring
[NASA-CASE-XMS-04670] c54 N78-17678
- Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323
- RING WINGS**
Design of ring wing vehicle of high
drag-to-weight ratio to withstand reentry
stress into low density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315
- RIPPLES**
Circuit for monitoring power supply by ripple
current indication
[NASA-CASE-KSC-10162] c09 N72-11225
- RIVETS**
Electrical connection for printed circuits on
common board, using bellows principle in rivet
[NASA-CASE-XNP-05082] c15 N70-41960
- ROCKET ENGINE CASES**
Method for shaping regeneratively cooled rocket
motor casing having minimum thickness at each
channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658
- Regeneratively cooled rocket motor casing with
tapered channels to insure minimum thicknesses
at each channel cross section for necessary
strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659
- Payload/spent rocket engine case separation system
[NASA-CASE-XLA-05369] c31 N71-15687
- Liner for hybrid solid propellants to bind
propellant to rocket motor case
[NASA-CASE-XNP-09744] c27 N71-16392
- Permanently magnetized ion engine casing
construction for use in spacecraft propulsion
systems
[NASA-CASE-XNP-06942] c28 N71-23293
- Casting propellant in rocket engine
[NASA-CASE-LAR-11995-1] c28 N77-10213
- Solid propellant rocket motor and method of
making same
[NASA-CASE-XLA-1349] c20 N77-17143
- ROCKET ENGINE CONTROL**
Fluid thrust control system --- for liquid
propellant rocket engines
[NASA-CASE-XNP-05964-1] c20 N79-21124
- ROCKET ENGINE DESIGN**
High thrust annular liquid propellant rocket
engine and exhaust nozzle design
[NASA-CASE-XLE-00078] c28 N70-33284
- Spherical solid propellant rocket engine design
[NASA-CASE-XLA-00105] c28 N70-33331
- Spherical solid propellant rocket engine having
abrupt burnout
[NASA-CASE-XHQ-01897] c28 N70-35381
- Metal ion rocket engine design
[NASA-CASE-XLE-00382] c28 N70-37980
- Improvement in rocket engine performance with
swirling flow exhaust nozzle development
[NASA-CASE-XNP-03692] c28 N71-24321
- Characteristics of ion rocket engine with
combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N73-24783
- Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502
- Rocket chamber and method of making
[NASA-CASE-LEW-11118-2] c20 N76-14191
- System for imposing directional stability on a
rocket-propelled vehicle
[NASA-CASE-MFS-21311-1] c20 N76-21275
- Low thrust monopropellant engine --- low
temperature environments
[NASA-CASE-GSC-12194-2] c20 N79-15151
- ROCKET ENGINES**
Channel-type shell construction for rocket
engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860
- Encapsulated heater forming hollow body for
cathode used in ion thruster
[NASA-CASE-LEW-10814-1] c28 N70-35422
- Apparatus for cooling and injecting hypergolic
propellants into combustion chamber of small
rocket engine
[NASA-CASE-XLE-00303] c15 N70-36535
- Elastic universal joint for rocket motor mounting
[NASA-CASE-XNP-00416] c15 N70-36947
- Water electrolysis rocket engine with self-
regulating stoichiometric fuel mixing regulator
[NASA-CASE-XGS-08729] c28 N71-14044

SUBJECT INDEX

ROCKET-BORNE INSTRUMENTS

- Method for igniting solid propellant rocket motors by injecting hypergolic fluids
[NASA-CASE-XLE-01988] c27 N71-15634
- Laminar flow of liquid coolants in rocket engines
[NASA-CASE-NPO-10122] c12 N71-17631
- Improvement in rocket engine performance with swirling flow exhaust nozzle development
[NASA-CASE-XNP-03692] c28 N71-24321
- System for removing and repairing spacecraft control thrusters by use of portable air locks
[NASA-CASE-NPS-20325] c28 N71-27095
- Device for back purging thrust engines
[NASA-CASE-XMS-04826] c28 N71-28849
- Development of method for cooling high temperature wall members with cooling medium having high heat absorption capability
[NASA-CASE-HQN-00938] c33 N71-29053
- Automatic shunting of ion thruster magnetic field when thruster is not operating
[NASA-CASE-LEW-10835-1] c28 N72-22771
- Vacuum chamber with scale model of rocket engine base area of space vehicle
[NASA-CASE-NPS-20620] c11 N72-27262
- Thermocouple apparatus for measuring wall temperatures in regeneratively cooled rocket engines having thin walled cooling passages
[NASA-CASE-XLE-05230-2] c14 N73-13417
- Improving performance of magnetoplasmadynamic arc rocket engine
[NASA-CASE-LEW-11180-1] c25 N73-25760
- Method of electroforming a rocket chamber
[NASA-CASE-LEW-11118-1] c20 N74-32919
- Device for installing rocket engines
[NASA-CASE-NPS-19220-1] c20 N76-22296
- Ion beam thruster shield
[NASA-CASE-LEW-12082-1] c20 N77-10148
- Anode for ion thruster
[NASA-CASE-LEW-12048-1] c20 N77-20162
- ROCKET EXHAUST**
- Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
[NASA-CASE-XLE-00208] c28 N70-34294
- Development of vortex fluid amplifier for throttling rocket exhaust
[NASA-CASE-LEW-10374-1] c28 N73-13773
- ROCKET FIRING**
- Design and characteristics of linkage to alleviate rocket vehicle divergence during launch
[NASA-CASE-XLA-00256] c31 N71-15663
- ROCKET FLIGHT**
- Development of technique for control of free flight rocket vehicles
[NASA-CASE-XLA-00937] c31 N71-17691
- ROCKET LAUNCHING**
- Design and characteristics of linkage to alleviate rocket vehicle divergence during launch
[NASA-CASE-XLA-00256] c31 N71-15663
- Controlled release device for use in launching rockets or missiles
[NASA-CASE-XKS-03338] c15 N71-24043
- ROCKET LININGS**
- A heat exchanger and method of making --- rocket lining
[NASA-CASE-LEW-12441-2] c34 N79-21313
- ROCKET NOZZLES**
- Gimbaled partially submerged nozzle for solid propellant rocket engines for providing directional control
[NASA-CASE-XNP-01544] c28 N70-34162
- Large area-ratio nozzles for rocket motor thrust chambers
[NASA-CASE-XLE-00145] c28 N70-36806
- Flexible rocket motor nozzle closure device to aid ignition and protect rocket chamber from foreign objects
[NASA-CASE-XLA-02651] c28 N70-41967
- Automatically deploying nozzle exit cone extension
[NASA-CASE-XLE-01640] c31 N71-15637
- Method for testing rocket nozzles at high tensile stress levels
[NASA-CASE-NPO-10311] c31 N71-15643
- Development of collapsible nozzle extension for rocket engines
[NASA-CASE-NPS-11497] c28 N71-16224
- Camera protecting device for use in photographing rocket engine nozzles or other engine components
[NASA-CASE-NPO-10174] c14 N71-18465
- Multislit film cooled pyrolytic graphite rocket nozzle
[NASA-CASE-XNP-04389] c28 N71-20942
- Prestressed rocket nozzle with ceramic inner rings and refractory metal outer rings
[NASA-CASE-XNP-02888] c18 N71-21068
- Improvement in rocket engine performance with swirling flow exhaust nozzle development
[NASA-CASE-XNP-03692] c28 N71-24321
- Development of method for cooling high temperature wall members with cooling medium having high heat absorption capability
[NASA-CASE-HQN-00938] c33 N71-29053
- Inflatable rocket engine nozzle skirt with transpiration cooling
[NASA-CASE-NPS-20619] c28 N72-11708
- Thin walled nozzle with insulative nonablative coating for solid propellant rocket engines
[NASA-CASE-NPO-11458] c28 N72-23810
- Method of making a rocket nozzle
[NASA-CASE-XNP-06884-1] c20 N79-21123
- ROCKET OXIDIZERS**
- Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209
- A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-NPS-23904-1] c20 N79-13077
- ROCKET PROPELLANTS**
- Solenoid two-step valve for bipropellant flow rate control to rocket engine
[NASA-CASE-XMS-04890-1] c15 N70-22192
- Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736
- Bipropellant injector with pair of concave deflector plates
[NASA-CASE-XNP-09461] c28 N72-23809
- High performance ammonium nitrate propellant
[NASA-CASE-NPO-14260] c28 N78-17230
- Recovery of aluminum and binder from composite propellants
[NASA-CASE-NPO-14110-1] c28 N79-10225
- Process for the leaching of AP from propellant
[NASA-CASE-NPO-14109-1] c28 N79-10227
- ROCKET TEST FACILITIES**
- High-vacuum condenser tank for testing ion rocket engines
[NASA-CASE-XLE-00168] c11 N70-33278
- Micro-pound extended range thrust stand for small rocket engines
[NASA-CASE-GSC-10710-1] c28 N71-27094
- ROCKET THRUST**
- Solid propellant rocket vehicle thrust control method and apparatus
[NASA-CASE-XNP-00217] c28 N70-38181
- High voltage insulators for direct current in acceleration system of electrostatic thruster
[NASA-CASE-XLE-01902] c28 N71-10574
- Characteristics of solid propellant rocket engine with controlled rate of thrust buildup operating in vacuum environment
[NASA-CASE-NPO-11559] c28 N73-24784
- Thrust measurement
[NASA-CASE-XMS-05731] c35 N75-29382
- ROCKET VEHICLES**
- Umbilical separator for rockets
[NASA-CASE-XNP-00425] c11 N70-38202
- Hydraulic support equipment for full scale dynamic testing of large rocket vehicle under free flight conditions
[NASA-CASE-XNP-01772] c11 N70-41677
- Design and characteristics of linkage to alleviate rocket vehicle divergence during launch
[NASA-CASE-XLA-00256] c31 N71-15663
- Development of technique for control of free flight rocket vehicles
[NASA-CASE-XLA-00937] c31 N71-17691
- Coupling device for moving vehicles
[NASA-CASE-GSC-12322-1] c37 N78-25429
- ROCKET-BORNE INSTRUMENTS**
- Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator,

ROCKETS

SUBJECT INDEX

and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432

General purpose rocket furnace
[NASA-CASE-MPS-23460-1] c09 N77-12070

ROCKETS
Device for detecting hydrogen fires onboard high altitude rockets
[NASA-CASE-MPS-13130] c10 N72-17173

ROCKS
Rotary impact-type rock drill for recovering rock cuttings
[NASA-CASE-INP-07478] c14 N69-21923

Rock sampling --- apparatus for controlling particle size
[NASA-CASE-INP-10007-1] c46 N74-23068

Rock sampling --- method for controlling particle size distribution
[NASA-CASE-INP-09755] c46 N74-23069

RODS
Nuclear thermionic converter --- tungsten-thorium oxide rods
[NASA-CASE-NPO-13121-1] c73 N77-18891

ROLL
Measuring roll alignment of test body with respect to reference body
[NASA-CASE-GSC-10514-1] c14 N72-20379

ROLLER BEARINGS
Solid lubricant applied to porous roller bearings prior to use in ultrahigh vacuum
[NASA-CASE-XLE-09527] c15 N71-17688

Seallinear bearing comprising two rows of roller bearings separated by spherical bearings and permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982

Low mass rolling element bearing assembly
[NASA-CASE-LEW-11087-1] c15 N73-30458

Method of making rolling element bearings
[NASA-CASE-LEW-11087-2] c37 N74-15128

Bearing material --- composite material with low friction surface for rolling or sliding contact
[NASA-CASE-LEW-11930-1] c24 N76-22309

ROLLERS
Improving load capacity and fatigue life of rolling element systems in rockets and missiles
[NASA-CASE-XLE-02999] c15 N71-16052

Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499

An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas
[NASA-CASE-NPO-14395-1] c37 N79-12446

ROLLING CONTACT LOADS
Development of rolling element bearing for operation in ultrahigh vacuum environment
[NASA-CASE-XLE-09527-2] c15 N71-26189

ROLLING MOMENTS
Star sensor system for roll attitude control of spacecraft
[NASA-CASE-INP-01307] c21 N70-41856

ROOM TEMPERATURE
Process permitting application of synthetic resin coating to irregular-shaped objects at ambient temperature
[NASA-CASE-INP-06508] c18 N69-39895

ROTARY STABILITY
Drive mechanism for operating reactance attitude control system for aerospace bodies
[NASA-CASE-INP-01598] c21 N71-15583

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136

Lubricated journal bearing
[NASA-CASE-LEW-11076-3] c37 N75-30562

Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

ROTARY WING AIRCRAFT
Aircraft control system for rotary wing aircraft
[NASA-CASE-ERC-10439] c02 N73-19004

ROTARY WINGS
Variable geometry rotor system for direct control over wake vortex
[NASA-CASE-LAR-10557] c02 N72-11018

Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029

Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130

Locking redundant link
[NASA-CASE-LAR-11900-1] c37 N79-14382

Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c08 N79-15057

ROTATING BODIES
Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485

Laser device for removing material from rotating object for dynamic balancing
[NASA-CASE-MPS-11279] c16 N71-20400

Phase-locked servo system --- for synchronizing the rotation of slip ring assembly
[NASA-CASE-MPS-22073-1] c33 N75-13139

Annular momentum control device used for stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158

Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459

Multiple in-line docking capability for rotating space stations
[NASA-CASE-MPS-20855-1] c15 N77-10112

Rotary target V-block --- for optical alignment of machinery
[NASA-CASE-LAR-12007-1] c74 N78-15883

Rotatable mass for a flywheel
[NASA-CASE-MPS-23051-1] c37 N79-10422

Multi-channel rotating optical interface for data transmission
[NASA-CASE-NPO-14066-1] c44 N79-20496

Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827

ROTATING CYLINDERS
Tread drum for animals --- having an electrical shock station
[NASA-CASE-ARC-10917-1] c51 N78-27733

ROTATING DISKS
Poil seal between parts moving relative to each other
[NASA-CASE-XLE-05130] c15 N69-21362

Rocket-borne aspect sensor consisting of radiation sensor, apertured disk, commutator, and counting circuits
[NASA-CASE-XGS-08266] c14 N69-27432

Redundant disc
[NASA-CASE-LEW-12496-1] c07 N78-33101

ROTATING ELECTRICAL MACHINES
Modulating and controlling intensity of light beam from high temperature source by servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479

Design and development of electric motor with stationary field and armature windings which operates on direct current
[NASA-CASE-XGS-05290] c09 N71-25999

Double-induction variable speed system for constant-frequency electrical power generation
[NASA-CASE-ERC-10065] c09 N71-27364

ROTATING ENVIRONMENTS
Radial module manned space station with artificial gravity environment
[NASA-CASE-XMS-01906] c31 N70-41373

Artificial gravity system for simulating self-locomotion capability of astronauts in rotating environments
[NASA-CASE-XLA-03127] c11 N71-10776

ROTATING GENERATORS
Rotating raster generator
[NASA-CASE-PRC-10071-1] c32 N74-20813

Kine-Pak: A self-contained, electrical power generator system --- using a helical spring to rotate a rotor and generate electric current
[NASA-CASE-LAR-11551-1] c44 N78-22468

Wind wheel electric power generator
[NASA-CASE-MPS-23515-1] c44 N78-22469

ROTATING MIRRORS
Optical retrodirective modulator with focus spoiling reflector driven by modulation signal
[NASA-CASE-GSC-10062] c14 N71-15605

Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880

Optical device containing rotatable prism and reflecting mirror for generating precise angles
[NASA-CASE-XGS-04173] c19 N71-26674

Method and apparatus for optically monitoring the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304

SUBJECT INDEX

SAFETY DEVICES

ROTATING SHAFTS

Fluid seal formed by flexible disk on rotating shaft to retain lubricating oils around shaft
[NASA-CASE-XLE-05130-2] c15 N71-19570

Anemometer with braking mechanism to prevent rotation of wind driven elements
[NASA-CASE-XNP-05224] c14 N71-23726

Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-XNP-06936] c15 N71-24695

Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294

Combination guide and rotary bearing for freely moving shaft
[NASA-CASE-XLA-00013] c15 N71-29136

Development of Hall effect transducer for converting mechanical shaft rotations into proportional electrical signals
[NASA-CASE-LAR-10620-1] c09 N72-25255

Development of optical system for detecting defective components in rotating machinery with emphasis on bearing assemblies
[NASA-CASE-XSC-10752-1] c15 N73-27407

Spiral groove seal --- for rotating shaft
[NASA-CASE-XLE-10326-4] c37 N74-15125

Digital servo controller --- for rotating antenna shaft
[NASA-CASE-XSC-10769-1] c33 N74-29556

Solid medium thermal engine
[NASA-CASE-ABC-10461-1] c44 N74-33379

Ergometer calibrator --- for any ergometer utilizing rotating shaft
[NASA-CASE-NFS-21045-1] c35 N75-15932

Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541

Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

Tachometer
[NASA-CASE-NFS-23175-1] c35 N77-30436

Rotary leveling base platform
[NASA-CASE-ABC-10981-1] c37 N78-27425

Rotary electric device
[NASA-CASE-GSC-12138-1] c33 N79-20314

ROTATION

Semilinear bearing comprising two rows of roller bearings separated by spherical bearings and permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982

Mechanical actuator wherein linear motion changes to rotational motion
[NASA-CASE-XGS-04548] c15 N71-24045

Positioning mechanism for converting translatory motion into rotary motion
[NASA-CASE-NPO-10679] c15 N72-21462

ROTOR AERODYNAMICS

Acoustically swept rotor
[NASA-CASE-ABC-11106-1] c05 N77-31130

ROTOR BLADES

Non-destructive method for applying and removing instrumentation on helicopter rotor blades
[NASA-CASE-LAR-11201-1] c35 N78-24515

Apparatus and method for reducing thermal stress in a turbine rotor
[NASA-CASE-LEW-12232-1] c07 N79-10057

ROTOR BLADES (TURBOMACHINERY)

Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-XNP-00816] c28 N71-28928

Blade vibration damping pins for turbomachinery
[NASA-CASE-XLE-00155] c28 N71-29154

Apparatus for welding blades to rotors
[NASA-CASE-LEW-10533-2] c37 N74-11300

Supersonic fan blading --- noise reduction in turbofan engines
[NASA-CASE-LEW-11402-1] c07 N74-28226

Blade retainer assembly
[NASA-CASE-LEW-12608-1] c07 N77-27116

Platform for a swing root turbomachinery blade
[NASA-CASE-LEW-12312-1] c07 N77-32148

ROTOR LIFT

Constant lift rotor for a heavier than air craft
[NASA-CASE-ABC-11045-1] c05 N79-17847

ROTOR SPEED

Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed

[NASA-CASE-NFS-20385] c09 N71-24904

ROTORCRAFT AIRCRAFT

Constant lift rotor for a heavier than air craft
[NASA-CASE-ABC-11045-1] c05 N79-17847

ROTORS

Multistage, multiple reentry, single rotor, axial flow turbine
[NASA-CASE-XLE-00085] c28 N70-39895

Describing angular position and velocity sensing apparatus
[NASA-CASE-XGS-05680] c14 N71-17585

Microwave waveguide switch with rotor position control
[NASA-CASE-XNP-06507] c09 N71-23548

Electromagnetic braking arrangement for controlling rotor rotation in electric motor
[NASA-CASE-XNP-06936] c15 N71-24695

Rotary vane attenuator with two stators and intermediary rotor, using resistive and orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420

Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515

Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323

RUBBER

Rubber composition for expulsion bladders and diaphragms for use with hydrazine
[NASA-CASE-NPO-11433] c18 N71-31140

Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil
[NASA-CASE-NPO-8835] c27 N78-33228

Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes
[NASA-CASE-LEW-12358-1] c44 N79-17313

RUBBER COATINGS

Intumescent paint containing nitrile rubber for fire protection
[NASA-CASE-ABC-10196-1] c18 N73-13562

RUBY

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

RUBY LASERS

Cooling and radiation protection of ruby lasers using copper sulfate solution in alcohol
[NASA-CASE-NFS-20180] c16 N72-12440

RUNWAY ALIGNMENT

Magnetic method for detection of aircraft position relative to runway
[NASA-CASE-ABC-10179-1] c21 N72-22619

RUNWAY LIGHTS

Retractable runway lights
[NASA-CASE-XLA-00119] c11 N70-33329

Spectrally balanced chromatic landing approach lighting system
[NASA-CASE-ABC-10990-1] c04 N77-12031

RUPTURING

Knife structure for controlling rupture of shock tube diaphragms
[NASA-CASE-IAC-00731] c11 N71-15960

S

SABOT PROJECTILES

Hypervelocity gun --- using both electric and chemical energy for projectile propulsion
[NASA-CASE-XLE-03186-1] c09 N79-21084

SAFETY DEVICES

Helmet and torso tiedown mechanism for shortening pressure suits upon inflation
[NASA-CASE-XMS-00784] c05 N71-12335

Positive locking check valve for stopping reversed flow
[NASA-CASE-XMS-09310] c15 N71-22706

Description of protective device for providing safe operating conditions around work piece in machine or metal working tool
[NASA-CASE-XLE-01092] c15 N71-22797

Velocity limiting safety system for motor driven research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895

Device for generating and controlling combustion products for testing of fire detection system

SAFETY FACTORS

[NASA-CASE-GSC-11095-1] c14 N72-10375
 Restraint torso for increased mobility and reduced physiological effects while wearing pressurized suits
 [NASA-CASE-BSC-12397-1] c05 N72-25119
 Totally confined explosive welding --- apparatus to reduce noise level and protect personnel during explosive bonding
 [NASA-CASE-LAR-10941-1] c37 N74-21057
 Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
 [NASA-CASE-LAR-10753-1] c08 N74-30421
 Shoulder harness and lap belt restraint system
 [NASA-CASE-ARC-10519-2] c05 N75-25915
 Fifth wheel
 [NASA-CASE-FRC-10081-1] c37 N77-14477
 Microwave power transmission beam safety system
 [NASA-CASE-NPO-14224-1] c32 N79-10271

SAFETY FACTORS
 Safety flywheel --- using flexible materials energy storage
 [NASA-CASE-HQN-10888-1] c44 N79-14527

SAHA EQUATIONS
 Cosmic dust analyzer
 [NASA-CASE-NSC-13802-2] c35 N76-15431

SALT BATHS
 Application techniques for protecting materials during salt bath brazing
 [NASA-CASE-XLE-00046] c15 N70-33311

SAMARIUM
 Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells
 [NASA-CASE-XLE-10715] c26 N71-23292

SAMPLERS
 Portable vacuum probe surface sampler for sampling large surface areas with relatively light loading densities of microorganisms
 [NASA-CASE-LAR-10623-1] c14 N73-30395

SAMPLES
 Plural output optometric sample cell and analysis system
 [NASA-CASE-NPO-10233-1] c74 N78-33913

SAMPLING
 Impact bit for cutting, collecting, and storing samples such as lunar rock cuttings
 [NASA-CASE-XNP-01412] c15 N70-42034
 Design and development of fluid sample collector
 [NASA-CASE-XMS-06767-1] c14 N71-20435
 Design and development of two types of atmosphere sampling chambers
 [NASA-CASE-NPO-11373] c13 N72-25323
 Digital to analog converter for sampled signal reconstruction
 [NASA-CASE-NSC-12458-1] c08 N73-32081
 Rock sampling --- apparatus for controlling particle size
 [NASA-CASE-XNP-10007-1] c46 N74-23068
 Rock sampling --- method for controlling particle size distribution
 [NASA-CASE-XNP-09755] c46 N74-23069
 Apparatus for microbiological sampling --- including automatic swabbing
 [NASA-CASE-LAR-11069-1] c35 N75-12272
 Automatic biowaste sampling
 [NASA-CASE-NSC-14640-1] c54 N76-14804
 Fluid sample collection and distribution system
 [NASA-CASE-NSC-16841-1] c51 N78-22590
 Remote water monitoring system
 [NASA-CASE-LAR-11973-1] c35 N78-27384
 CCD correlated quadruple sampling processor
 [NASA-CASE-NPO-14426-1] c33 N79-17134

SANDWICH STRUCTURES
 Sandwich panel structure for removing heat from shield between hot and cold areas
 [NASA-CASE-XLA-00349] c33 N70-37979
 Particle detector for measuring micrometeoroid velocity in space
 [NASA-CASE-XLA-00495] c14 N70-41332
 Capacitor sandwich structure containing metal sheets of known thickness for counting penetration rates of meteoroids
 [NASA-CASE-XLE-01246] c14 N71-10797
 Technique for making foldable, inflatable, plastic honeycomb core panels for use in building and bridge structures, light and radio wave reflectors, and spacecraft
 [NASA-CASE-XLA-03892] c15 N71-22713

SUBJECT INDEX

Punch and die device for forming convolution series in thin gage metal hemispheres
 [NASA-CASE-XNP-05297] c15 N71-23811
 Composite sandwich lattice structure
 [NASA-CASE-LAR-11898-1] c24 N78-10214
 Low density bismaleimide-carbon microballoon composites
 [NASA-CASE-ARC-11040-1] c24 N79-16915

SAPPHIRE
 Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
 [NASA-CASE-GSC-11577-1] c37 N75-15992
 Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
 [NASA-CASE-GSC-11577-3] c24 N76-19234

SATELLITE ANTENNAS
 Monopole antenna system for maximum omnidirectional efficiency for use on satellites
 [NASA-CASE-XLA-00414] c07 N70-38200
 Development of antenna system for spin stabilized communication satellite for simultaneous reception and transmission of data
 [NASA-CASE-XGS-02607] c31 N71-23009

SATELLITE ATTITUDE CONTROL
 Photosensitive light source device for detecting unmanned spacecraft deviation from reference attitude
 [NASA-CASE-XNP-00438] c21 N70-35089
 Attitude control system for spacecraft based on conversion of incident solar radiation on movable control surfaces into mechanical torques
 [NASA-CASE-XNP-02982] c31 N70-41855
 Design and development of satellite despin device
 [NASA-CASE-XNP-08523] c31 N71-20396
 Utilization of momentum devices for forming attitude control and damping system for spacecraft
 [NASA-CASE-XLA-02551] c21 N71-21708
 Gravity gradient attitude control system with gravity gradiometer and reaction wheels for artificial satellite attitude control
 [NASA-CASE-GSC-10555-1] N70-27324
 Method and apparatus for providing active attitude control for spacecraft by converting any attitude motion of vehicle into simple rotational motion
 [NASA-CASE-HQN-10439] N72-21624
 Momentum wheel design for spacecraft attitude control and magnetic drum and head system for data storage
 [NASA-CASE-NPO-11481] c21 N73-13644
 Combination automatic-starting electrical plasma torch and gas shutoff valve --- for satellite attitude control
 [NASA-CASE-XLE-10717] c37 N75-29426
 Attitude control system
 [NASA-CASE-MFS-22787-1] c15 N77-10113

SATELLITE CONTROL
 Stabilization system for gravity-oriented satellites using single damper rod
 [NASA-CASE-XAC-01591] c31 N71-17729

SATELLITE DESIGN
 Inflation system for balloon type satellites
 [NASA-CASE-XGS-03351] c31 N71-16081

SATELLITE INSTRUMENTS
 Satellite stabilization reaction wheel scanner
 [NASA-CASE-XGS-02629] c14 N71-21082
 Economical satellite aided vehicle avoidance system for preventing midair collisions
 [NASA-CASE-ERC-10419] c21 N72-21631

SATELLITE NETWORKS
 Satellite network synchronization system with multiple access to multiplex repeater
 [NASA-CASE-GSC-10390-1] c07 N72-11149

SATELLITE ORBITS
 Development of method and apparatus for spinning satellite about selected axis after reaching predetermined orientation
 [NASA-CASE-HQN-00936] c31 N71-29050

SATELLITE ORIENTATION
 Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
 [NASA-CASE-XGS-00466] c21 N70-34297
 Spin phase synchronization of cartwheel satellite in polar orbit
 [NASA-CASE-XGS-05579] c31 N71-15676
 Development of method and apparatus for spinning satellite about selected axis after reaching

SUBJECT INDEX

SEALING

- predetermined orientation
[NASA-CASE-BQN-00936] c31 N71-29050
- Analogue spatial maneuver computer with three
output angles for obtaining desired spatial
attitude
[NASA-CASE-GSC-10880-1] c08 N72-11172
- SATELLITE PERTURBATION**
Flexible turnstile antenna system for reducing
nutation in spin-oriented satellites
[NASA-CASE-IMP-00442] c31 N71-10747
- SATELLITE ROTATION**
Optical scanner mounted on rotating support
structure with method of compensating for
image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485
- Stretch Yo-Yo mechanism for reducing initial
spin rate of space vehicle
[NASA-CASE-XGS-00619] c30 N70-40016
- Development of method and apparatus for spinning
satellite about selected axis after reaching
predetermined orientation
[NASA-CASE-BQN-00936] c31 N71-29050
- SATELLITE TELEVISION**
Adaptive signal generating system and logic
circuits for satellite television systems
[NASA-CASE-GSC-11367] c10 N71-26374
- SATELLITE TRACKING**
Design and development of tracking receiver for
tracking satellites and receiving radio signal
transmissions under adverse noise conditions
[NASA-CASE-XGS-08679] c10 N71-21473
- Simultaneous acquisition of tracking data from
two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854
- Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472
- SATELLITE TRANSMISSION**
Asynchronous, multiplexing, single line
transmission and recovery data system --- for
satellite use
[NASA-CASE-NPO-13321-1] c32 N75-26195
- SATELLITE-BORNE PHOTOGRAPHY**
Rotary solenoid shutter drive assembly and
rotary inertia damper and stop plate assembly
--- for use with cameras mounted in satellites
[NASA-CASE-GSC-11560-1] c33 N74-20861
- SATELLITE-BORNE RADAR**
Real-time multiple-look synthetic aperture radar
processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278
- SATURATION**
Saturable magnetic core and signal detection for
indicating impending saturation
[NASA-CASE-ERC-10089] c23 N72-17747
- SAWTOOTH WAVEFORMS**
Linear sawtooth voltage wave generator with
transistor timing circuit having capacitor and
zener diode feedback loops
[NASA-CASE-XMS-01315] c09 N70-41675
- SCANNERS**
Electronic and mechanical scanning control
system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
- Electronic background suppression field scanning
sensor for detecting point source targets
[NASA-CASE-XGS-05211] c07 N69-39980
- Electron beam scanning system for improved image
definition and reduced power requirements for
video signal transmission
[NASA-CASE-ERC-10552] c09 N71-12539
- Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082
- Monopulse scanning network for scanning
volumetric antenna pattern
[NASA-CASE-GSC-10299-1] c09 N71-24804
- High speed scanner for measuring mass of
preselected gases at high sampling rate
[NASA-CASE-LAR-10766-1] c14 N72-21432
- Scan oscilloscope for mapping surface
sensitivity of photomultiplier tube
[NASA-CASE-LAR-10320-1] c09 N72-23172
- Ultrasonic scanner for radial and flat panels
[NASA-CASE-MPS-20335-1] c35 N74-10415
- Apparatus for scanning the surface of a
cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009
- Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857
- Electronically scanned pressure sensor module
with in SITO calibration capability
[NASA-CASE-LAR-12230-1] c35 N79-14347
- SCANNING**
Conversion system for transforming slow scan
rate of Apollo TV camera on moon to fast scan
of commercial TV
[NASA-CASE-XMS-07168] c07 N71-11300
- Operation of vidicon tube for scanning spatial
charge density pattern
[NASA-CASE-IMP-06028] c09 N71-23189
- Position determination systems --- using orbital
antenna scan of celestial bodies
[NASA-CASE-MSC-12593-1] c17 N76-21250
- Velocity servo for continuous scan Fourier
interference spectrometer
[NASA-CASE-NPO-14093-1] c74 N78-22891
- Magnetometer with a miniature transducer and
automatic scanning
[NASA-CASE-LAR-11617-2] c35 N78-32397
- SCATTERING CROSS SECTIONS**
Method and means for helium/hydrogen ratio
measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c35 N79-12416
- SCHLIEREN PHOTOGRAPHY**
Schlieren system employing antiparallel
reflector in the forward direction
[NASA-CASE-ARC-10971-1] c09 N76-26224
- System and method for obtaining wide screen
Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856
- SCHOOLS**
Silent alarm system for multiple room facility or
school
[NASA-CASE-NPO-11307-1] c10 N73-30205
- SCHOTTKY DIODES**
High voltage, high current Schottky barrier
solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526
- Solar cells having integral collector grids
[NASA-CASE-LRW-12819-1] c44 N79-11467
- Back wall solar cell
[NASA-CASE-LRW-12236-2] c44 N79-14528
- SCOOPS**
Aeroflexible wing structure with air scoop for
inflating stiffeners with ram air
[NASA-CASE-XLA-06095] c01 N69-39981
- SCRAMBLING (COMMUNICATION)**
Secure communication system
[NASA-CASE-MSC-16462-1] c32 N78-25274
- SCREWS**
Electromechanical control actuator system using
double differential screws
[NASA-CASE-ERC-10022] c15 N71-26635
- Adjustable support device with jacket screw for
altering distance between base and supported
member
[NASA-CASE-NPO-10721] c15 N72-27484
- SCRUBERS**
Developing high pressure gas purification and
filtration system for use in test operations
of space vehicles
[NASA-CASE-MPS-12806] c14 N71-17588
- Process for removing sulfur dioxide from gas
streams --- using iron as a catalyst
[NASA-CASE-MSC-16299-1] c45 N77-31668
- SBA ICE**
Laser technique for breaking ice in ship path
[NASA-CASE-LAR-10815-1] c16 N72-22520
- SEALERS**
Design and development of flexible joint for
pressure suits
[NASA-CASE-XMS-09636] c05 N71-12344
- Epoxy resin sealing device for electrochemical
cells in high vacuum environments
[NASA-CASE-XGS-02630] c03 N71-22974
- Leak resistant bonded elastomeric seal for
secondary electrochemical cells
[NASA-CASE-XGS-02631] c03 N71-23006
- Self lubricating fluoride-metal composite
materials for outer space applications
[NASA-CASE-XLE-08511] c18 N71-23710
- Polyimides of ether-linked aryl tetracarboxylic
dianhydrides
[NASA-CASE-MPS-22355-1] c23 N76-15268
- SEALING**
Poil seal between parts moving relative to each
other
[NASA-CASE-XLE-05130] c15 N69-21362

SEALS (STOPPERS)

SUBJECT INDEX

Sealed electric storage battery with gas manifold interconnecting each cell
[NASA-CASE-XNP-03378] c03 N71-11051

Epoxy resin sealing device for electrochemical cells in high vacuum environments
[NASA-CASE-XGS-02630] c03 N71-22974

Electrode sealing and insulation for fuel cells containing caustic liquid electrolytes using powdered plastic and metal
[NASA-CASE-XMS-01625] c15 N71-23022

Sealing evacuation port and evacuating vacuum container such as space jackets
[NASA-CASE-XMP-03290] c15 N71-23256

Segmented sealing surface in valve seat
[NASA-CASE-WPO-10606] c15 N72-25451

A method and technique for installing light-weight fragile, high-temperature fiber insulation --- sealing recoverable spacecraft
[NASA-CASE-MSC-16934-1] c24 N79-16923

Thermal barrier pressure seal
[NASA-CASE-MSC-18134-1] c37 N79-17225

SEALS (STOPPERS)

Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320

Flexible inflatable seal for butterfly valves
[NASA-CASE-XLE-00101] c15 N70-33376

Shrink-fit vacuum system gas valve
[NASA-CASE-XGS-00587] c15 N70-35087

Thin walled pressure test vessel using low-melting alloy-filled joint to attach shell to heads
[NASA-CASE-XLE-04677] c15 N71-10577

Fluid seal formed by flexible disk on rotating shaft to retain lubricating oils around shaft
[NASA-CASE-XLE-05130-2] c15 N71-19570

Sealed storage container for channel carriers with mounted miniature electronic components
[NASA-CASE-MPS-20075] c09 N71-26133

Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294

Spiral groove seal --- for rotating shaft
[NASA-CASE-XLE-10326-4] c37 N74-15125

Glass-to-metal seals comprising relatively high expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063

High speed, self-acting shaft seal --- for use in turbine engines
[NASA-CASE-LEW-11274-1] c37 N75-21631

Circumferential shaft seal
[NASA-CASE-LEW-12119-1] c37 N76-20488

Method of forming shrink-fit compression seal
[NASA-CASE-LAB-11563-1] c37 N77-23482

Counter pumping debris excluder and separator --- gas turbine shaft seals
[NASA-CASE-LEW-11855-1] c07 N78-25090

Gas path seal
[NASA-CASE-LEW-12131-2] c07 N78-31103

A method of making high temperature seals
[NASA-CASE-MSC-16973-1] c37 N79-17224

Thermal barrier pressure seal
[NASA-CASE-MSC-18134-1] c37 N79-17225

Composite seal for turbomachinery --- backings for turbine engine shrouds
[NASA-CASE-LEW-12131-1] c37 N79-18318

SEAMS (JOINTS)

Sealing apparatus for joining two pieces of frangible materials
[NASA-CASE-XLA-01494] c15 N71-24164

Cord restraint system for pressure suit joints
[NASA-CASE-XMS-09635] c05 N71-24623

Method of making pressure tight seal for super alloy
[NASA-CASE-LAB-10170-1] c37 N74-11301

SEAT BELTS

Shoulder harness and lap belt restraint system
[NASA-CASE-ARC-10519-2] c05 N75-25915

SEATS

A seat cushion to provide realistic acceleration cues for aircraft simulator pilots
[NASA-CASE-LAB-12149-2] c54 N78-30821

SECTORS

Journal Bearings
[NASA-CASE-LEW-11076-2] c37 N74-32921

SECURITY

Secure communication system
[NASA-CASE-MSC-16462-1] c32 N78-25274

Portable appliance security apparatus
[NASA-CASE-GSC-12399-1] c33 N79-13261

SEGMENTS

Fabrication of curved reflector segments for solar mirror
[NASA-CASE-XLE-08917] c15 N71-15597

SEISMIC WAVES

Determining sway of buildings by low frequency device using pendulum
[NASA-CASE-XMP-00479] c14 N70-34794

SELECTORS

Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777

Peak polarity selector for monitoring waveforms
[NASA-CASE-FRC-10010] c10 N71-24862

SELF ALIGNMENT

Electro-optical system for maintaining two-axis alignment during milling operations on large tank-sections
[NASA-CASE-XMP-00908] c14 N70-40238

SELF ERECTING DEVICES

Self-erectable space structures of flexible foam for application in planetary orbits
[NASA-CASE-XLA-00686] c31 N70-34135

Manned space station collapsible for launching and self-erectable in orbit
[NASA-CASE-XLA-00678] c31 N70-34296

Manned space station launched in packaged condition and self erecting in orbit
[NASA-CASE-XLA-00258] c31 N70-38676

Foldable conduit capable of springing back as self erecting structural member
[NASA-CASE-XLE-00620] c32 N70-41579

Antenna design with self erecting mesh reflector
[NASA-CASE-XGS-09190] c31 N71-16102

Self erecting parabolic reflector design for use in space
[NASA-CASE-XMS-03454] c09 N71-24658

SELF LUBRICATING MATERIALS

Self lubricating fluoride-metal composite materials for outer space applications
[NASA-CASE-XLE-08511] c18 N71-23710

Self lubricating gears and other mechanical parts having surface adapted to frictional contact
[NASA-CASE-MSC-14971] c15 N71-24984

SELF LUBRICATION

Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications
[NASA-CASE-LEW-11930-4] c24 N79-17916

SELF MANEUVERING UNITS

Hand-held maneuvering unit for propulsion and attitude control of astronauts in zero or reduced gravity environment
[NASA-CASE-XMS-05304] c05 N71-12336

Lightweight propulsion unit for movement of personnel and equipment across lunar surface
[NASA-CASE-MPS-20130] c28 N71-27585

SELF PROPAGATION

Self-generating optical frequency waveguide
[NASA-CASE-HQN-10541-1] c07 N71-26291

SELF SEALING

Modification of one man life raft
[NASA-CASE-LAB-10241-1] c54 N74-14845

Self-stabilizing radial face seal
[NASA-CASE-LEW-12991-1] c37 N79-12445

SEMICONDUCTOR DEVICES

Fixture for simultaneously supporting several components for electrical testing
[NASA-CASE-XNP-06032] c09 N69-21926

Semiconductor p-n junction on needle apex to provide stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422

Selective gold diffusion on monolithic silicon chips for switching and nonswitching amplifier devices and circuits and linear and digital logic circuits
[NASA-CASE-ERC-10072] c09 N70-11148

Extra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit
[NASA-CASE-XGS-00381] c09 N70-34819

Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560

SUBJECT INDEX

SEPARATORS

- Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607
- Separation of semiconductor wafer into chips bounded by scribe lines
[NASA-CASE-ERC-10138] c26 N71-14354
- Voltage tunable Gunn effect semiconductor for microwave generation
[NASA-CASE-XER-07894] c09 N71-18721
- Indicator device for monitoring charge of wet cell battery, using semiconductor light emitter and photodetector
[NASA-CASE-NPO-10194] c03 N71-20407
- Signaling summary alarm circuit with semiconductor switch for faulty contact indications
[NASA-CASE-XLE-03061-1] c10 N71-24798
- Method for temperature compensating semiconductor gages by exposure to high energy radiation
[NASA-CASE-XLA-04555-1] c14 N71-25892
- Development and characteristics of fluid oscillator analog to digital converter with variable frequency controlled by signal passing through conditioning circuit
[NASA-CASE-LEW-10345-1] c10 N71-25899
- Volume displacement transducer for leak detection in hermetically sealed semiconductor devices
[NASA-CASE-ERC-10033] c14 N71-26672
- Inverter drive circuit for semiconductor switch
[NASA-CASE-LEW-10233] c10 N71-27126
- Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992
- Semiconductor device manufacture using refractory dielectrics as diffusant masks and interconnection insulating materials
[NASA-CASE-XER-08476-1] c26 N72-17820
- Single crystal film semiconductor devices
[NASA-CASE-ERC-10222] c09 N72-22199
- Development of process for forming insulating layer between two electrical conductor or semiconductor materials
[NASA-CASE-LEW-10489-1] c15 N72-25447
- Multiterminal Gunn-type semiconductor microwave generator for producing stable signals
[NASA-CASE-XER-07895] c26 N72-25679
- Miniature piezoelectric semiconductor transducer with in situ stress coupling
[NASA-CASE-ERC-10087-2] c14 N72-31446
- Development and characteristics of hermetically sealed coaxial package for containing microwave semiconductor components
[NASA-CASE-GSC-10791-1] c15 N73-14469
- Process for fabricating SiC semiconductor devices
[NASA-CASE-LEW-12094-1] c76 N76-25049
- Semiconductor projectile impact detector
[NASA-CASE-MFS-23008-1] c35 N78-18390
- Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-MFS-23315-1] c76 N78-24950
- Apparatus for measuring semiconductor device resistance
[NASA-CASE-NPO-14424-1] c33 N78-28340
- SEMICONDUCTOR JUNCTIONS**
- Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor
[NASA-CASE-XNP-01960] c09 N71-23027
- Miniature electromechanical junction transducer operating on piezoelectric effect and utilizing epoxy for stress coupling component
[NASA-CASE-ERC-10087] c14 N71-27334
- Resin for protecting p-n semiconductor junction surface
[NASA-CASE-ERC-10339-1] c18 N73-30532
- Microwave integrated circuit for Josephson voltage standards
[NASA-CASE-MFS-23845-1] c33 N78-32347
- SEMICONDUCTORS (MATERIALS)**
- Hole mobility of deposited semiconductor films in vacuum utilizing thermal gradient
[NASA-CASE-XRS-04614] c15 N69-21460
- Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616
- Improved semiconductor multivibrator circuit which approaches 100 percent efficiency
[NASA-CASE-XAC-00942] c10 N71-16042
- Fabrication of sintered impurity semiconductor brushes for electrical energy transfer
[NASA-CASE-XNP-01016] c26 N71-17818
- Binding layer of semiconductor particles by electrodeposition
[NASA-CASE-XNP-01959] c26 N71-23043
- Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells
[NASA-CASE-XLE-10715] c26 N71-23292
- Characteristics of infrared photodetectors manufactured from semiconductor material irradiated by electron beam
[NASA-CASE-LAR-10728-1] c14 N73-12445
- Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility
[NASA-CASE-HQN-10069] c33 N75-27251
- Vapor deposition apparatus --- semiconductors and gallium arsenides
[NASA-CASE-HQN-10462] c25 N75-29192
- Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297
- Application of semiconductor diffusants to solar cells by screen printing
[NASA-CASE-LEW-12775-1] c44 N79-11468
- Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLE-02545-1] c76 N79-21910
- SENSITIVITY**
- Design of active RC network capable of operating at high Q values with reduced sensitivity to gain amplification and number of passive components
[NASA-CASE-ARC-10042-2] c10 N72-11256
- A phase insensitive ultrasonic transducer annealing cadmium sulfide crystals
[NASA-CASE-LAR-12304-1] c71 N78-29871
- SENSITOMETRY**
- Condition sensor system and method
[NASA-CASE-MSC-14805-1] c54 N78-32720
- SENSORS**
- Bonding method in the manufacture of continuous regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260
- Medical subject monitoring systems --- multichannel monitoring systems
[NASA-CASE-MSC-14180-1] c52 N76-14757
- SENSORY PERCEPTION**
- Prosthetic limb with tactile sensing device
[NASA-CASE-MFS-16570-1] c05 N73-32013
- SEPARATED FLOW**
- Thrust vector control by secondary injection of fluid into rocket nozzle flow field to separate exhaust flow
[NASA-CASE-XLE-00208] c28 N70-34294
- Double hinged flap for boundary layer control over trailing edges of wings
[NASA-CASE-XLA-01290] c02 N70-42016
- Separation cell with permeable membranes for fluid mixture component separation
[NASA-CASE-XMS-02952] c18 N71-20742
- Flow separation detector
[NASA-CASE-ARC-11046-1] c35 N78-14364
- SEPARATION**
- A method for separating biological cells
[NASA-CASE-MFS-23883-1] c51 N79-21743
- SEPARATORS**
- Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465
- Umbilical separator for rockets
[NASA-CASE-XNP-00425] c11 N70-38202
- Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
- Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
- Liquid-gaseous centrifugal separator for weightlessness environment
[NASA-CASE-XLA-00415] c15 N71-16079
- Development of liquid separating system using capillary device connected to flexible bladder

SEQUENCING

storage chamber
[NASA-CASE-XMS-13052] c14 N71-20427
vapor-liquid separator design with vapor driven
pump for separated liquid pumping for
application in propellant transfer
[NASA-CASE-XMP-04042] c15 N71-23023
Device for removing air from water for use in
life support systems in manned space flight
[NASA-CASE-XLA-8914] c15 N73-12492
Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608
Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282
Method and apparatus for fluffing, separating,
and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
Flexible formulated plastic separators for
alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552
Gels as battery separators for soluble
electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606
Low gravity phase separator
[NASA-CASE-MSC-14773-1] c35 N78-12390
Automatic multiple-sample applicator and
electrophoresis apparatus
[NASA-CASE-ARC-10991-1] c25 N78-14104
Partial interlaminar separation system for
composites
[NASA-CASE-LAR-12065-1] c24 N78-22162
Counter pumping debris excluder and separator
--- gas turbine shaft seals
[NASA-CASE-LEW-11855-1] c07 N78-25090
Formulated plastic separators for soluble
electrode cells
[NASA-CASE-LEW-12358-2] c25 N78-25149
Inorganic-organic separators for alkaline
batteries
[NASA-CASE-LEW-12649-1] c44 N78-25530
Cross-linked polyvinyl alcohol and method of
making same --- separator for alkaline batteries
[NASA-CASE-LEW-13101-1] c25 N79-14173
In-situ cross-linking of polyvinyl alcohol ---
polymeric films for separators in alkaline
batteries
[NASA-CASE-LEW-13135-1] c25 N79-14174
Formulated plastic separators for soluble
electrode cells --- rubber-ion transport
membranes
[NASA-CASE-LEW-12358-1] c44 N79-17313
Water separator
[NASA-CASE-XMS-01295-1] c37 N79-21345

SEQUENCING

Synchronous counter design incorporating
cascaded binary stages driven by previous
stages and inputs through NAND gates
[NASA-CASE-XGS-02440] c08 N71-19432
Pulse duration control device for driving slow
response time loads in selected sequence
including switching and delay circuits and
magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
Digital function generator for generating any
arbitrary single valued function
[NASA-CASE-NPO-11104] c08 N72-22165
MCD 2 sequential function generator for multibit
sequence, with two-bit shift register for each
pair of bits
[NASA-CASE-NPO-10636] c08 N72-25210
Linear shift register with feedback logic for
generating pseudonoise linear recurring binary
sequences
[NASA-CASE-NPO-11406] c08 N73-12175
Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482

SEQUENTIAL ANALYSIS

Binary coded sequential acquisition ranging
system for distance measurements
[NASA-CASE-NPO-11194] c08 N72-25209
Event sequence detector with several input and
shift register responsive to clock pulses
[NASA-CASE-NPO-11703-1] c10 N73-32144

SEQUENTIAL COMPUTERS

Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N79-20751

SEQUENTIAL CONTROL

Linear three-tap feedback shift register
[NASA-CASE-NPO-10351] c08 N71-12503

SUBJECT INDEX

Binary sequence detector with few memory
elements and minimized logic circuit complexity
[NASA-CASE-XNP-05415] c08 N71-12505
Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377
SERUMS
Reduction of blood serum cholesterol
[NASA-CASE-NPO-12119-1] c52 N75-15270
SERVICE LIFE
Service life of electromechanical device for
generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
Belt for transmitting power from a driving
member to a driven member
[NASA-CASE-GSC-12289-1] c37 N78-32435
SERVOAMPLIFIERS
Pneumatic servoamplifier for controlling flow
regulation
[NASA-CASE-MSC-12121-1] c15 N71-27147
SERVOCONTROL
Electronic and mechanical scanning control
system for monopulse tracking antenna
[NASA-CASE-XGS-Q5582] c07 N69-27460
Proportional controller for regulating aircraft
or spacecraft motion about three axes
[NASA-CASE-XAC-03392] c03 N70-41954
Modulating and controlling intensity of light
beam from high temperature source by
servocontrolled rotating cylinders
[NASA-CASE-XMS-04300] c09 N71-19479
Servocontrol system for measuring local stresses
at geometric discontinuity in stressed material
[NASA-CASE-XLA-08530] c32 N71-25360
System to control speed of hydraulically movable
members by limiting energy applied to
actuators with hydraulic servo loop
[NASA-CASE-ARC-10131-1] c15 N71-27754
Digital servo controller --- for rotating
antenna shaft
[NASA-CASE-KSC-10769-1] c33 N74-29556
Digital servo control of random sound test
excitation --- in reverberant acoustic chamber
[NASA-CASE-NPO-11623-1] c71 N74-31148
Phase-locked servo system --- for synchronizing
the rotation of slip ring assembly
[NASA-CASE-MPS-22073-1] c33 N75-13139
Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123
SERVO MECHANISMS
Servo system for retroreflector of Michelson
interferometer
[NASA-CASE-NPO-10300] c14 N71-17662
Mechanical function generators with
potentiometer as sensing element
[NASA-CASE-XAC-00001] c15 N71-28952
Closed loop servosystem for variable speed tape
recorders onboard spacecraft
[NASA-CASE-NPO-10700] c07 N71-33613
Characteristics of lightweight actuator for
imparting linear motion using elongated output
shaft
[NASA-CASE-NPO-11222] c15 N72-25456
Development and characteristics of rotary
actuator for use on spacecraft to deploy and
support pivotal structures such as solar panels
[NASA-CASE-NPO-10680] c31 N73-14855
Hydraulic drain means for servo-systems
[NASA-CASE-NPO-10316-1] c37 N77-22479
Actuator mechanism
[NASA-CASE-GSC-11883-2] c37 N78-31426
Apparatus for providing a servo drive signal in
a high-speed stepping interferometer
[NASA-CASE-NPO-13569-2] c35 N79-14348
SERVO MOTORS
Automatic closed circuit television arc guidance
control for welding joints
[NASA-CASE-MPS-13046] c07 N71-19433
Electric motor control system with pulse width
modulation for providing automatic null
seeking servo
[NASA-CASE-XNP-05195] c10 N71-24861
Development and characteristics of cyclically
operable, optical shutter for use as focal
plane shutter for transmitting single
radiation pulses
[NASA-CASE-NPO-10758] c14 N73-14427
Development and characteristics of rotary
actuator for use on spacecraft to deploy and
support pivotal structures such as solar panels

SUBJECT INDEX

SHOCK ABSORBERS

- [NASA-CASE-NPO-10680] c31 N73-14855
 Servo valve
 [NASA-CASE-LAR-11643-1] c37 N75-13268
 Velocity servo for continuous scan Fourier
 interference spectrometer
 [NASA-CASE-NPO-14093-1] c74 N78-22891
- SHAFTS (MACHINE ELEMENTS)**
 Fatigue resistant shear pin with hollow shaft
 and two plugs
 [NASA-CASE-XLA-09122] c15 N69-27505
 Elastic universal joint for rocket motor mounting
 [NASA-CASE-XNP-00416] c15 N70-36947
 Air brake device for absorbing and measuring
 power from rotating shafts
 [NASA-CASE-XLE-00720] c14 N70-40201
 Two axis flight controller with potentiometer
 control shafts directly coupled to rotatable
 ball members
 [NASA-CASE-XPR-04104] c03 N70-42073
 Ratchet mechanism for high speed operation at
 reduced backlash
 [NASA-CASE-NFS-12805] c15 N71-17805
 Universal joints for connecting two displaced
 shafts or members
 [NASA-CASE-NPO-10646] c15 N71-28467
 Development of mating flat surfaces to inhibit
 leakage of fluid around shafts
 [NASA-CASE-XLE-10326-2] c15 N72-29488
 Fatigue life of hybrid antifriction bearings at
 ultrahigh speeds
 [NASA-CASE-LEW-11152-1] c15 N73-32359
 Spiral groove seal --- for hydraulic rotating
 shaft
 [NASA-CASE-LEW-10326-3] c37 N74-10474
 Hole cutter --- drill bits and rotating shaft
 [NASA-CASE-NFS-22649-1] c37 N75-25186
 Circumferential shaft seal
 [NASA-CASE-LEW-12119-1] c37 N76-20488
 Non-floating universal joint
 [NASA-CASE-MSC-19546-1] c37 N77-25536
 Twin-capacitive shaft angle encoder with analog
 output signal
 [NASA-CASE-ARC-10897-1] c33 N77-31404
 A speed control device for a heavy duty shaft
 [NASA-CASE-NPO-14170] c37 N78-17391
 Counter pumping debris excluder and separator
 --- gas turbine shaft seals
 [NASA-CASE-LEW-11855-1] c07 N78-25090
 Sequencing device utilizing planetary gear set
 [NASA-CASE-MSC-19514-1] c37 N79-20377
- SHALE OIL**
 In-situ laser retorting of oil shale
 [NASA-CASE-LEW-12217-1] c43 N78-14452
- SHAPED CHARGES**
 Coupling device for linear shaped charge for
 space vehicle abort system
 [NASA-CASE-XLA-00189] c33 N70-36846
 Development of remotely controlled shaped charge
 for lateral displacement of rocket stages
 after separation
 [NASA-CASE-XLA-04804] c31 N71-23008
- SHAPERS**
 Mandrel for shaping solid propellant rocket fuel
 into engine casing
 [NASA-CASE-XLA-00304] c27 N70-34783
 Hand tool for forming dimples and nipples on end
 portion of tubes
 [NASA-CASE-XMS-06876] c15 N71-21536
 Dielectric apparatus for heating, fusing, and
 hardening of organic matrix to form plastic
 material into shaped product
 [NASA-CASE-LAR-10121-1] c15 N71-26721
- SHARKS**
 Conditioning tanned sharkskin for use as
 abrasive resistant clothing
 [NASA-CASE-XMS-09691-1] c18 N71-15545
- SHARPNESS**
 Method of forming a sharp edge on an optical
 device --- beam splitters for Solar Maximum
 Missions spectropolarimeter
 [NASA-CASE-GSC-12348-1] c74 N78-29902
- SHEAR CREEP**
 Measuring shear-creep compliance of solid and
 liquid materials used in spacecraft components
 [NASA-CASE-XLE-01481] c14 N71-10781
- SHEAR FLOW**
 Shear modulated fluid amplifier of high pressure
 hydraulic vortex amplifier type
 [NASA-CASE-NFS-10412] c12 N71-17578
- SHEAR PROPERTIES**
 Describing instrument capable of measuring true
 shear viscosity of liquids and viscoelastic
 materials
 [NASA-CASE-XNP-09462] c14 N71-17584
- SHEAR STRESS**
 Fatigue resistant shear pin with hollow shaft
 and two plugs
 [NASA-CASE-XLA-09122] c15 N69-27505
 Development of combined velocimeter and
 accelerometer based on color changes in liquid
 crystalline material subjected to shear stresses
 [NASA-CASE-ERC-10292] c14 N72-25410
 Bonded joint and method --- for reducing peak
 shear stress in adhesive bonds
 [NASA-CASE-LAR-10900-1] c37 N74-23064
- SHELLS (STRUCTURAL FORMS)**
 Channel-type shell construction for rocket
 engines and related configurations
 [NASA-CASE-XLE-00144] c28 N70-34860
- SHIELDING**
 Flexible bellows joint shielding sleeve for
 propellant transfer pipelines
 [NASA-CASE-XNP-01855] c15 N71-28937
 Shielded flat conductor cable of ribbonlike
 wires laminates in thin flexible insulation
 [NASA-CASE-NFS-13687-2] c09 N72-22198
 System for the measurement of ultra-low stray
 light levels --- determining the adequacy of
 large space telescope systems
 [NASA-CASE-NFS-23513-1] c74 N79-11865
- SHIFT REGISTERS**
 Binary to binary-coded decimal converter using
 single set of logic circuits notwithstanding
 number of shift register decades
 [NASA-CASE-XNP-00432] c08 N70-35423
 Linear three-tap feedback shift register
 [NASA-CASE-NPO-10351] c08 N71-12503
 Computer circuit performing both counting and
 shifting logic operations also capable of
 miniaturization and integration in basic
 circuits
 [NASA-CASE-XNP-01753] c08 N71-22897
 Commutator for steering precisely controlled
 bidirectional currents through numerous loads
 by use of magnetic core shift registers
 [NASA-CASE-NPO-10743] c08 N72-21199
 Multistage feedback shift register with states
 decomposable into cycles of equal length
 [NASA-CASE-NPO-11082] c08 N72-22167
 MOD 2 sequential function generator for multibit
 sequence, with two-bit shift register for each
 pair of bits
 [NASA-CASE-NPO-10636] c08 N72-25210
 Linear shift register with feedback logic for
 generating pseudonoise linear recurring binary
 sequences
 [NASA-CASE-NPO-11406] c08 N73-12175
 Family of m-ary linear feedback shift register
 with binary logic
 [NASA-CASE-NPO-11868] c10 N73-20254
 Nonrecursive counting digital filter containing
 shift register
 [NASA-CASE-NPO-11821-1] c08 N73-26175
 Event sequence detector with several input and
 shift register responsive to clock pulses
 [NASA-CASE-NPO-11703-1] c10 N73-32144
 Method and apparatus for decoding compatible
 convolutional codes
 [NASA-CASE-MSC-14070-1] c32 N74-32598
 Nonlinear nonsingular feedback shift registers
 [NASA-CASE-NPO-13451-1] c33 N76-14373
 Selective data segment monitoring system ---
 using shift registers
 [NASA-CASE-ARC-10899-1] c60 N77-19760
 Digital data reformatter/deserializer
 [NASA-CASE-NPO-13676-1] c60 N79-20751
- SHOCK ABSORBERS**
 Pivotal shock absorbing assembly for use as load
 distributing portion in landing gear systems
 of space vehicles
 [NASA-CASE-XNP-03856] c31 N70-34159
 Energy dissipating shock absorbing system for
 land payload recovery or vehicle braking
 [NASA-CASE-XLA-00754] c15 N70-34850
 Shock absorbing couch for body support under
 high acceleration or deceleration forces
 [NASA-CASE-XMS-01240] c05 N70-35152

SHOCK LOADS

Low onset rate energy absorber in form of strut assembly for crew couch of Apollo command module [NASA-CASE-MSC-12279-1] c15 N70-35679

Landing pad assembly for aerospace vehicles [NASA-CASE-XMP-02853] c31 N70-36654

Spacecraft shock absorbing system for soft landings [NASA-CASE-XMP-02108] c31 N70-36845

Shock absorber for landing gear of lunar or planetary landing modules [NASA-CASE-XMP-01045] c15 N70-40354

Shock absorbing articulated multiple couch assembly [NASA-CASE-MSC-11253] c05 N71-12343

Design and development of double-acting shock absorber for spacecraft docking operations [NASA-CASE-XMS-03722] c15 N71-21530

Impact energy absorber with decreasing absorption rate [NASA-CASE-XLA-01530] c14 N71-23092

Energy absorbing crew couch strut for Apollo command module [NASA-CASE-MSC-12279] c15 N72-17450

Shock absorber for use as protective barrier in impact energy absorbing system [NASA-CASE-NPO-10671] c15 N72-20443

Translatory shock absorber for attitude sensors [NASA-CASE-MPS-22905-1] c19 N76-22284

Vehicular impact absorption system [NASA-CASE-NPO-14014-1] c37 N79-10420

SHOCK LOADS

Damper system for alleviating air flow shock loads on wind tunnel models [NASA-CASE-XLA-09480] c11 N71-33612

SHOCK MEASURING INSTRUMENTS

Semiconductor projectile impact detector [NASA-CASE-MPS-23008-1] c35 N78-18390

SHOCK RESISTANCE

Removable potting compound for instrument shock protection [NASA-CASE-XLA-00482] c15 N70-36409

Thermal shock resistant hafnia ceramic materials [NASA-CASE-LAR-10894-1] c18 N73-14584

Thermal shock and erosion resistant tantalum carbide ceramic material [NASA-CASE-LAR-11902-1] c27 N78-17206

SHOCK TUBES

Knife structure for controlling capture of shock tube diaphragms [NASA-CASE-XAC-00731] c11 N71-15960

Design, development, and operation of shock tube with bypass piston tunnel [NASA-CASE-NPO-12109] c11 N72-22245

Annular arc accelerator shock tube [NASA-CASE-NPO-13528-1] c09 N77-10071

SHOCK WAVE INTERACTION

Absorptive, nonreflecting barrier mounted between closely spaced jet engines on supersonic aircraft, for preventing shock wave interference [NASA-CASE-XLA-02865] c28 N71-15563

SHOCK WAVE LUMINESCENCE

Method and apparatus for measuring shock layer radiation distribution about high velocity objects [NASA-CASE-XAC-02970] c14 N69-39896

SHOCK WAVE PROFILES

Method and apparatus for measuring shock layer radiation distribution about high velocity objects [NASA-CASE-XAC-02970] c14 N69-39896

SHOCK WAVES

Apparatus for mechanically dispersing ultrafine metal powders subjected to shock waves [NASA-CASE-XLE-04946] c17 N71-24911

Electrical device for developing converging spherical shock waves [NASA-CASE-MPS-20890] c14 N72-22439

Production of intermetallic compounds by effect of shock waves from explosions and compaction of powder [NASA-CASE-MPS-20861-1] c18 N73-32437

Shock position sensor for supersonic inlets --- measuring pressure in the throat of a supersonic inlet [NASA-CASE-LEW-11915-1] c35 N76-14431

SHOES

Jet shoes for space locomotion [NASA-CASE-XLA-08491] c05 N69-21380

SUBJECT INDEX

SHORT CIRCUITS

Use of silicon controlled rectifier shorting circuit to protect thermoelectric generator source from thermal destruction [NASA-CASE-XGS-04808] c03 N69-25146

Vacuum thermionic converter with short-circuited triodes and increased electron transmission and conversion efficiency [NASA-CASE-XLE-01015] c03 N69-39898

Apparatus for automatically testing analog to digital converters for open and short circuits [NASA-CASE-XLA-06713] c14 N71-28991

Apparatus including a plurality of spaced transformers for locating short circuits in cables [NASA-CASE-KSC-10899-1] c33 N79-18193

SHOT PEENING

Method of peening and portable peening gun [NASA-CASE-MPS-23047-1] c37 N76-18454

SHROUDED NOZZLES

Two dimensional wedge/translating shroud nozzle [NASA-CASE-LAR-11919-1] c07 N78-27121

SHROUDED TURBINES

Composite seal for turbomachinery --- backings for turbine engine shrouds [NASA-CASE-LEW-12131-1] c37 N79-18318

SHROUDS

Shrouded composite propulsion system configuration [NASA-CASE-XLA-01043] c28 N71-10780

Composite seal for turbomachinery --- backings for turbine engine shrouds [NASA-CASE-LEW-12131-1] c37 N79-18318

SHUTTERS

High speed shutter --- electrically actuated ribbon loop for shuttering optical or fluid passageways [NASA-CASE-ARC-10516-1] c70 N74-21300

SIDEBANDS

Phase locked loop with sideband rejecting properties in continuous wave tracking radar [NASA-CASE-XNP-02723] c07 N70-41680

SIDELobe REDUCTION

Multiple mode horn antenna with radiation pattern of equal beamwidths and suppressed sidelobes [NASA-CASE-XNP-01057] c07 N71-15907

SIGNAL ANALYSIS

Design and development of signal detection and tracking apparatus [NASA-CASE-XGS-03502] c10 N71-20852

Method and apparatus for a single channel digital communications system --- synchronization of received PCM signal by digital correlation with reference signal [NASA-CASE-NPO-11302-2] c32 N74-10132

Differential phase shift keyed signal resolver [NASA-CASE-MSC-14066-1] c33 N74-27705

Correlation type phase detector --- with time correlation integrator for frequency multiplexed signals [NASA-CASE-GSC-11744-1] c33 N75-26243

Real time analysis of voiced sounds [NASA-CASE-NPO-13465-1] c32 N76-31372

Digital plus analog output encoder [NASA-CASE-GSC-12115-1] c62 N76-31946

SIGNAL ANALYZERS

Monitoring system for signal amplitude ranges over predetermined time interval [NASA-CASE-XMS-04061-1] c09 N69-39885

Feedback controller for sampling error signals within single control formulation time interval [NASA-CASE-GSC-10554-1] c08 N71-29033

Development of family of frequency to amplitude converters for frequency analysis of complex input signal waveforms [NASA-CASE-MSC-12395] c09 N72-25257

Device for performing statistical time-series analysis of complex electrical signal waveforms [NASA-CASE-MSC-12428-1] c10 N73-25240

Pulse stretcher for narrow pulses [NASA-CASE-MSC-14130-1] c33 N74-32711

Electronic optical transfer function analyzer [NASA-CASE-MPS-21672-1] c74 N76-19935

Speech analyzer [NASA-CASE-GSC-11898-1] c32 N77-30309

SIGNAL DETECTION

Position locating system for remote aircraft using voice communication and digital signals [NASA-CASE-GSC-10087-2] c21 N71-13958

- Saturable magnetic core and signal detection for indicating impending saturation
[NASA-CASE-ERC-10089] c23 N72-17747
- Anti-multipath digital signal detector
[NASA-CASE-LAR-11827-1] c32 N77-10392
- Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NFO-13753-1] c32 N77-20289
- Automatic communication signal monitoring system
[NASA-CASE-NPO-13941-1] c32 N79-10262
- Apparatus and method for stabilized phase detection for binary signal tracking loops
[NASA-CASE-HSC-16461-1] c33 N79-11313
- SIGNAL DETECTORS**
- Roughness detector for recording surface pattern of irregularities
[NASA-CASE-XLA-00203] c14 N70-34161
- Electrical testing apparatus for detecting amplitude and width of transient pulse
[NASA-CASE-INP-06519] c09 N71-12519
- System for monitoring presence of neutrals in streams of ions - ion engine control
[NASA-CASE-INP-02592] c24 N71-20518
- Development of apparatus for generating output signal commensurate with information contained in input signal
[NASA-CASE-ERC-10041] c08 N71-29138
- A signal attenuator --- pulse rate sensor circuits
[NASA-CASE-ERC-11012-1] c33 N78-28339
- SIGNAL DISTORTION**
- Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-HSC-14557-1] c32 N76-16249
- SIGNAL ENCODING**
- Adaptive compression signal processor for PCM communication systems
[NASA-CASE-XLA-03076] c07 N71-11266
- Secure communication system
[NASA-CASE-HSC-16462-1] c32 N78-25274
- SIGNAL GENERATORS**
- Plural recorder system which limits signal recording to signals of sufficient interest
[NASA-CASE-XMS-06949] c09 N69-21467
- Alternating current signal generator providing plurality of amplitude modulated output signals
[NASA-CASE-INP-05612] c09 N69-21468
- Circuitry for generating sync signals in FM communication systems including video information
[NASA-CASE-INP-10830] c07 N71-11281
- Apparatus for generating microwave signals at progressively related phase angles for driving antenna array
[NASA-CASE-ERC-10046] c10 N71-18722
- System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174
- Hand controller operable about three respectively perpendicular axes and capable of actuating signal generators for attitude control devices
[NASA-CASE-XMS-07487] c15 N71-23255
- Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-INP-04367] c09 N71-23545
- Sampling circuit for signal processing in multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10388] c07 N71-24622
- Signaling summary alarm circuit with semiconductor switch for faulty contact indications
[NASA-CASE-XLE-03061-1] c10 N71-24798
- Adaptive signal generating system and logic circuits for satellite television systems
[NASA-CASE-GSC-11367] c10 N71-26374
- Device for monitoring voltage by generating signal when voltages drop below predetermined value
[NASA-CASE-KSC-10020] c10 N71-27338
- System for control of variable signal generator
[NASA-CASE-NPO-11064] c07 N72-11150
- Digital function generator for generating any arbitrary single valued function
[NASA-CASE-NPO-11104] c08 N72-22165
- Development of Hall effect transducer for converting mechanical shaft rotations into proportional electrical signals
[NASA-CASE-LAR-10620-1] c09 N72-25255
- Multiterminal Gunn-type semiconductor microwave generator for producing stable signals
[NASA-CASE-XER-07895] c26 N72-25679
- Audio frequency analysis circuit for determining, displaying, and recording frequency of sweeping audio frequency signal
[NASA-CASE-NPO-11147] c14 N72-27408
- Digital servo control of random sound test excitation --- in reverberant acoustic chamber
[NASA-CASE-NPO-11623-1] c71 N74-31148
- Signal conditioner test set
[NASA-CASE-KSC-10750-1] c35 N75-12270
- System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519
- Pseudo-noise test set for communication system evaluation --- test signals
[NASA-CASE-MFS-22671-1] c35 N75-21582
- NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502
- Twin-capacitive shaft angle encoder with analog output signal
[NASA-CASE-ARC-10897-1] c33 N77-31404
- Frequency translating phase conjugation circuit for active retrodirective antenna array
[NASA-CASE-NPO-14536-1] c32 N79-14277
- Apparatus for providing a servo drive signal in a high-speed stepping interferometer
[NASA-CASE-NPO-13569-2] c35 N79-14348
- Versatile LDV burst simulator
[NASA-CASE-LAR-11859-1] c35 N79-14349
- A system for detecting substructure microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556
- SIGNAL MIXING**
- Impedance transformation device for signal mixing
[NASA-CASE-XGS-01110] c07 N69-24334
- SIGNAL PROCESSING**
- Adaptive compression signal processor for PCM communication systems
[NASA-CASE-XLA-03076] c07 N71-11266
- Conversion system for transforming slow scan rate of Apollo TV camera on moon to fast scan of commercial TV
[NASA-CASE-XMS-07168] c07 N71-11300
- Difference indicating circuit used in conjunction with device measuring gravitational fields
[NASA-CASE-INP-08274] c10 N71-13537
- Circuitry for developing autocorrelation function continuously within signal receiving period
[NASA-CASE-INP-00746] c07 N71-21476
- System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174
- Feedback integrating circuit with grounded capacitor for signal processing
[NASA-CASE-XAC-10607] c10 N71-23669
- Sampling circuit for signal processing in multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10388] c07 N71-24622
- Video signal processing system for sampling video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
- Monopulse scanning network for scanning volumetric antenna pattern
[NASA-CASE-GSC-10299-1] c09 N71-24804
- Apparatus for filtering input signals
[NASA-CASE-NPO-10198] c09 N71-24806
- Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865
- Transient video signal tape recorder with expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
- Scanning signal phase and amplitude electronic control device with hybrid T waveguide junction
[NASA-CASE-NPO-10302] c10 N71-26142
- Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-INP-09830] c14 N71-26266
- Development of apparatus for generating output signal commensurate with information contained in input signal
[NASA-CASE-ERC-10041] c08 N71-29138

SIGNAL RECEPTION

SUBJECT INDEX

Development of electric circuit for production of different pulse width signals
[NASA-CASE-XLA-07788] c09 N71-29139

Phase shifting circuit for selecting phase of input signal
[NASA-CASE-ARC-10269-1] c10 N72-16172

Processing system for semiperiodic electrical signals to produce real time contoured display
[NASA-CASE-MSC-13407-1] c10 N72-20225

Design and characteristics of recording system for selective reprocessing and filtering of data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119

Technique for deriving logarithm of input signal using exponentially varying electric signal inversely
[NASA-CASE-ERC-10267] c09 N72-23173

Development and characteristics of telemetry system using computer-accessed circuits and remotely controlled from ground station
[NASA-CASE-NPO-11358] c07 N72-25172

Characteristics of digital data processor using pulse from clock source to derive binary singles to show state of various indicators in processor
[NASA-CASE-GSC-10975-1] c08 N73-13187

Characteristics of two channel telemetry system with two data rate channels for high and low data rate communication
[NASA-CASE-NPO-11572] c07 N73-16121

Measurement system for physical quantity represented by or converted to variable frequency signal
[NASA-CASE-MFS-20658-1] c14 N73-30386

Digital to analog converter for sampled signal reconstruction
[NASA-CASE-MSC-12458-1] c08 N73-32081

Fluid pressure amplifier and system
[NASA-CASE-LAR-10868-1] c33 N74-11050

Low level signal limiter
[NASA-CASE-XLE-04791] c32 N74-22096

Miniature multichannel biotelemetry system
[NASA-CASE-NPO-13065-1] c52 N74-26625

Apparatus and method for processing Korotkov sounds --- for blood pressure measurement
[NASA-CASE-MSC-13999-1] c52 N74-26626

Pulse stretcher for narrow pulses
[NASA-CASE-MSC-14130-1] c33 N74-32711

Continuous Fourier transform method and apparatus --- for the analysis of simultaneous analog signal components
[NASA-CASE-ARC-10466-1] c60 N75-13539

Signal conditioning circuit apparatus --- with constant input impedance
[NASA-CASE-ARC-10348-1] c33 N75-19518

Television noise reduction device
[NASA-CASE-MSC-12607-1] c32 N75-21485

Isolated output system for a class D switching-mode amplifier
[NASA-CASE-MFS-21616-1] c33 N75-30429

Compact bi-phase pulse coded modulation decoder
[NASA-CASE-KSC-10834-1] c33 N76-14371

Filtering device --- removing electromagnetic noise from voice communication signals
[NASA-CASE-MFS-22729-1] c32 N76-21366

System for measuring Reynolds in a turbulently flowing fluid --- signal processing
[NASA-CASE-ARC-10755-2] c34 N76-27517

Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386

Apparatus for determining thermophysical properties of test specimens
[NASA-CASE-LAR-11883-1] c09 N77-27131

An interleaving device --- for computer logic circuits used in optical data processing
[NASA-CASE-GSC-12111-2] c60 N77-31800

Analog to digital converter for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731

Hearing aid malfunction detection system
[NASA-CASE-MSC-14916-1] c33 N78-10375

Electrochemical data signal process and display
[NASA-CASE-LAR-11922-1] c25 N78-17171

Swept group delay measurement
[NASA-CASE-NPO-13909-1] c33 N78-25319

Quadrature demodulation
[NASA-CASE-GSC-12137-1] c33 N78-32338

Bit error rate measurement above and below bit rate tracking threshold

[NASA-CASE-MSC-12743-1] c32 N79-10263

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-1] c32 N79-19195

SIGNAL RECEPTION

Radar signal receiver arrangement for extending range and increasing signal to noise ratio
[NASA-CASE-XNP-00748] c07 N70-36911

Reflectometer for receiver input impedance match measurement
[NASA-CASE-XNP-10843] c07 N71-11267

Diversity receiving system with diversity phase lock
[NASA-CASE-XGS-01222] c10 N71-20841

Design and development of signal detection and tracking apparatus
[NASA-CASE-XGS-03502] c10 N71-20852

Development of optimum pre-detection diversity combining receiving system adapted for use with amplitude modulation, phase modulation, and frequency modulation systems
[NASA-CASE-XGS-00740] c07 N71-23098

Binary data decoding device for use at receiving end of communication channel
[NASA-CASE-NPO-10118] c07 N71-24741

Development of electronic circuit for combining input signals on two separate antennas to form two processed signals
[NASA-CASE-MSC-12205-1] c07 N71-27056

Input signal measurement using liquid crystalline elements
[NASA-CASE-ERC-10275] c26 N72-25680

Filter for third order phase locked loops in signal receivers
[NASA-CASE-NPO-11941-1] c10 N73-27171

Electromechanical actuator for producing mechanical force and/or motion in response to electrical signals
[NASA-CASE-NPO-11738-1] c09 N73-30185

Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391

SIGNAL REFLECTION

Reflectometer for receiver input impedance match measurement
[NASA-CASE-XNP-10843] c07 N71-11267

Reflex feed system for dual frequency antenna with frequency cutoff means
[NASA-CASE-NPO-14022-1] c32 N78-31321

SIGNAL STABILIZATION

Linear accelerator frequency control system
[NASA-CASE-XGS-05441] c10 N71-22962

Development of apparatus for generating output signal commensurate with information contained in input signal
[NASA-CASE-ERC-10041] c08 N71-29138

System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982

SIGNAL TO NOISE RATIOS

Semiconductor in resonant cavity for improving signal to noise ratio of communication receiver
[NASA-CASE-MSC-12259-1] c07 N70-12616

Radar signal receiver arrangement for extending range and increasing signal to noise ratio
[NASA-CASE-XNP-00748] c07 N70-36911

Detector assembly for discriminating first signal with respect to presence or absence of second signal at time of occurrence of first signal
[NASA-CASE-XNP-00701] c09 N70-40272

Automatic estimation of signal to noise ratio and other parameters in signal communication systems
[NASA-CASE-XNP-05254] c07 N71-20791

Voltage controlled oscillators and pulse amplitude modulation for signal ratio system
[NASA-CASE-XNP-04367] c09 N71-23545

Design and characteristics of recording system for selective reprocessing and filtering of data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119

Development of idler feedback system to reduce electronic noise problem in two parametric amplifiers
[NASA-CASE-LAR-10253-1] c09 N72-25258

Superconductive resonant cavity for improved signal to noise ratio in communication signal
[NASA-CASE-MSC-12259-2] c07 N72-33146

SUBJECT INDEX

SILICON CONTROLLED RECTIFIERS

- Signal to noise ratio determination circuit using bandpass limiter
[NASA-CASE-GSC-11239-1] c10 N73-25241
- Gated compressor, distortionless signal limiter
[NASA-CASE-NPO-11820-1] c32 N74-19788
- SIGNAL TRANSMISSION**
- Synchronizing apparatus for multi-access satellite time division multiplex system
[NASA-CASE-XGS-05918] c07 N69-39974
- Electro-mechanical circuit for converting floating intelligence signal to common electrically grounded intelligence recorder
[NASA-CASE-XAC-00086] c09 N70-33182
- Demodulator for simultaneous demodulation of two modulating ac signal carriers close in frequency
[NASA-CASE-XNP-01160] c07 N71-11298
- Bipolar phase detector and corrector for split phase PCM data signals
[NASA-CASE-XGS-01590] c07 N71-12392
- Automatic estimation of signal to noise ratio and other parameters in signal communication systems
[NASA-CASE-XNP-05254] c07 N71-20791
- Multiplexed communication system design including automatic correction of transmission errors introduced by frequency spectrum shifts
[NASA-CASE-XNP-01306] c07 N71-20814
- Adaptive notch filter, using modulation techniques for reversed phase noise signal
[NASA-CASE-XNP-01892] c10 N71-22986
- Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311
- Device for locating electrically nonlinear objects and determining distance to object by FM signal transmission
[NASA-CASE-KSC-10108] c14 N73-25461
- Television multiplexing system, using single crystal controlled clock for signal synchronization
[NASA-CASE-KSC-10654-1] c07 N73-30115
- Controlled oscillator system with a time dependent output frequency
[NASA-CASE-NPO-11962-1] c33 N74-10194
- Pulse code modulated signal synchronizer
[NASA-CASE-HSC-12462-1] c32 N74-20809
- Pulse code modulated signal synchronizer
[NASA-CASE-HSC-12494-1] c32 N74-20810
- Digital transmitter for data bus communications system
[NASA-CASE-HSC-14558-1] c32 N75-21486
- Modulator for tone and binary signals --- phase of modulation of tone and binary signals on carrier waves in communication systems
[NASA-CASE-GSC-11743-1] c32 N75-24981
- Method and apparatus for background signal reduction in opto-acoustic absorption measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411
- Automatic transponder --- measurement of the internal delay time of a transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
- Fiber optic multiplex optical transmission system
[NASA-CASE-KSC-11047-1] c74 N78-14889
- A system for displaying at a remote station data generated at a central station and for powering the remote station from the central station
[NASA-CASE-GSC-12411-1] c33 N79-14308
- SIGNATURE ANALYSIS**
- Multispectral imaging and analysis system --- using charge coupled devices and linear arrays
[NASA-CASE-NPO-13691-1] c43 N79-17288
- SILANES**
- Preparation of elastomeric diamine silazane polymers
[NASA-CASE-XNP-04133] c06 N71-20717
- Synthesis of high purity dianilinosilanes
[NASA-CASE-XNP-06409] c06 N71-23230
- Process for preparing high molecular weight polyaryloxysilanes from lower molecular weight forms
[NASA-CASE-XNP-08674] c06 N71-28807
- Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers
[NASA-CASE-ABC-10915-2] c27 N79-18052
- SILICA GEL**
- Gels as battery separators for soluble electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606
- SILICATES**
- Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979
- Alkali-metal silicate binders and methods of manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217
- SILICIDES**
- Silicide coating process and composition for protection of refractory metals from oxidation
[NASA-CASE-XLE-10910] c18 N71-29040
- Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
[NASA-CASE-LEW-11179-1] c27 N76-16229
- SILICON**
- Method of forming thin window drifted silicon charged particle detector
[NASA-CASE-XLE-00808] c24 N71-10560
- Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells
[NASA-CASE-XLE-10715] c26 N71-23292
- Metal pattern bonding technique for cover glass attachment to silicon solar cells for space applications
[NASA-CASE-XLE-08569] c03 N71-23449
- Covered silicon solar cells and method of manufacture --- with polymeric films
[NASA-CASE-LEW-11065-2] c44 N76-14600
- Liquid reactant feeder for arc assisted metal reduction reactor
[NASA-CASE-NPO-14382-1] c25 N78-22186
- A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control
[NASA-CASE-NPO-14474-1] c26 N78-27255
- A process for converting amorphous to crystalline silicon with attendant purification
[NASA-CASE-NPO-14223-1] c25 N79-10168
- An improved system for slicing silicon wafers
[NASA-CASE-NPO-14406-1] c31 N79-10245
- An improved apparatus for use in the production of ribbon-shaped crystals from a silicon melt
[NASA-CASE-NPO-14297-1] c76 N79-10918
- Method of controlling defect orientation in silicon crystal ribbon growth
[NASA-CASE-NPO-13918-1] c76 N79-11920
- SILICON CARBIDES**
- Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
[NASA-CASE-ERC-10120] c26 N69-33482
- Producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-00158] c26 N70-36805
- Device for producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-02057] c26 N70-40015
- Process for fabricating SiC semiconductor devices
[NASA-CASE-LEW-12094-1] c76 N76-25049
- Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984
- SILICON COMPOUNDS**
- Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607
- Process for preparing disilanol with in-chain perfluoroalkyl groups
[NASA-CASE-MFS-20979-2] c06 N73-32030
- Infusible silazane polymer and process for producing same --- protective coatings
[NASA-CASE-XNP-02526-1] c27 N79-21190
- SILICON CONTROLLED RECTIFIERS**
- Use of silicon controlled rectifier shorting circuit to protect thermoelectric generator source from thermal destruction
[NASA-CASE-XGS-04808] c03 N69-25146
- Silicon controlled rectifier inverter with compensation of transients to avoid false gating
[NASA-CASE-XLA-08507] c09 N69-39984

SILICON DIOXIDE

SUBJECT INDEX

- Reversible ring counter using cascaded single silicon controlled rectifier stages
[NASA-CASE-XGS-01473] c09 N71-10673
- Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
[NASA-CASE-XLA-07497] c09 N71-12514
- SILICON DIOXIDE**
- Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components
[NASA-CASE-XNP-00920] c15 N71-15906
- Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield
[NASA-CASE-XMS-04312] c07 N71-22984
- Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient
[NASA-CASE-ERC-10073-1] c24 N74-19769
- Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376
- Two-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-1] c27 N76-22377
- Transmitting and reflecting diffuser --- using ultraviolet grade fused silica coatings
[NASA-CASE-LAR-10385-3] c74 N78-15879
- Field effect transistor and method of construction thereof
[NASA-CASE-MFS-23312-1] c33 N78-27326
- SILICON FILMS**
- Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
[NASA-CASE-ERC-10120] c26 N69-33482
- SILICON JUNCTIONS**
- Improving radiation resistance of silicon semiconductor junctions by doping with lithium
[NASA-CASE-XGS-07801] c09 N71-12513
- SILICON NITRIDES**
- Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient
[NASA-CASE-ERC-10073-1] c24 N74-19769
- Silicon nitride coated, plastic covered solar cell
[NASA-CASE-LEW-11496-1] c44 N77-14580
- SILICON OXIDES**
- Three-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-2] c27 N76-23426
- SILICON POLYMERS**
- Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers
[NASA-CASE-ARC-10915-2] c27 N79-18052
- SILICON RADIATION DETECTORS**
- Lithium drifted silicon radiation detector with gold rectifying contacts
[NASA-CASE-XLE-10529] c14 N69-23191
- Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-0117] c05 N71-19440
- SILICON TRANSISTORS**
- Vapor deposition method for forming metallized tungsten contacts on silicon substrates
[NASA-CASE-GSC-10695-1] c09 N72-25259
- Development of method and apparatus for detecting surface ions on silicon diodes and transistors
[NASA-CASE-ERC-10325] c15 N72-25457
- SILICONE RESINS**
- Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575
- SILICONES**
- Silicone containing solid propellant
[NASA-CASE-NPO-14477-1] c28 N79-10224
- SILICONIZING**
- Vapor deposited laminated nitride-silicon coating for corrosion prevention of carbonaceous surfaces
[NASA-CASE-XLA-00284] c15 N71-16075
- SILOXANES**
- Synthesis of siloxane containing epoxy polymers with low dielectric properties
[NASA-CASE-MFS-13994-1] c06 N71-11240
- Method for producing alternating ether-siloxane copolymers with stable properties when exposed to elevated temperatures and UV radiation
[NASA-CASE-XMF-02584] c06 N71-20905
- Synthesis of siloxane containing epoxide and diamine polymers
[NASA-CASE-MFS-13994-2] c06 N72-25148
- Silphenylenesiloxane polymer with in-chain perfluoroalkyl groups
[NASA-CASE-MFS-20979] c06 N72-25151
- Fluid polydimethylsiloxane resin with low outgassing properties in cured state
[NASA-CASE-GSC-11358-1] c06 N73-26100
- SILVER**
- Dry electrode manufacture, using silver powder with cement
[NASA-CASE-FRC-10029-2] c05 N72-25121
- SILVER ALLOYS**
- Brazing alloy composition
[NASA-CASE-XMF-06053] c26 N75-27126
- SILVER CHLORIDES**
- Electrochemically reversible silver-silver chloride electrode for detecting bioelectric potential differences generated by human muscles and organs
[NASA-CASE-XMS-02872] c05 N69-21925
- Silver chloride use in technique for fusion bonding of graphite to silver, glass, ceramics, and certain other metals
[NASA-CASE-XGS-00963] c15 N69-39735
- SILVER COMPOUNDS**
- Description of electrical equipment and system for purification of waste water by producing silver ions for bacterial control
[NASA-CASE-MSC-10960-1] c03 N71-24718
- SILVER ZINC BATTERIES**
- Elimination of two step voltage discharge property of silver zinc batteries by using divalent silver oxide capacity of cell to charge anodes to monovalent silver state
[NASA-CASE-XGS-01674] c03 N71-29129
- SIMULATORS**
- Development of apparatus for simulating zero gravity conditions
[NASA-CASE-MFS-12750] c27 N71-16223
- Phonocardiogram simulator producing electrical voltage waves to control amplitude and duration between simulated sounds
[NASA-CASE-XKS-10804] c05 N71-24606
- Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
[NASA-CASE-NPO-10251] c10 N71-27365
- Laser Doppler velocity simulator
[NASA-CASE-LAR-12176-1] c36 N78-29435
- SINE SERIES**
- Service life of electromechanical device for generating sine/cosine functions
[NASA-CASE-LAR-10503-1] c09 N72-21248
- Function generators for producing complex vibration mode patterns used to identify vibration mode data
[NASA-CASE-LAR-10310-1] c10 N73-20253
- SINE WAVES**
- Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
[NASA-CASE-NPO-10251] c10 N71-27365
- Wideband generator for producing sine wave quadrature and second harmonic of input signal
[NASA-CASE-NPO-11133] c10 N72-20223
- Electro-mechanical sine/cosine generator
[NASA-CASE-LAR-11389-1] c33 N77-26387
- SINGLE CRYSTALS**
- Producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-00158] c26 N70-36805
- Single crystal film semiconductor devices
[NASA-CASE-ERC-10222] c09 N72-22199
- Growth of gallium nitride crystals
[NASA-CASE-LAR-11302-1] c25 N75-13054
- Ball effect magnetometer
[NASA-CASE-LEW-11632-2] c35 N75-13213
- Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043
- Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLE-02545-1] c76 N79-21910

SINTERING

Condenser-separator for dehumidifying air utilizing sintered metal surface
[NASA-CASE-XLA-08645] c15 N69-21465

Production of refractory bodies with controlled porosity by pressing and heating mixtures of refractory and inert metal powders
[NASA-CASE-LEW-10393-1] c17 N71-15468

SIZE (DIMENSIONS)

Development of apparatus for producing metal powder particles of controlled size
[NASA-CASE-XLE-06461-2] c17 N72-28535

SIZE DETERMINATION

Impact measuring technique for determining size of hypervelocity projectiles
[NASA-CASE-LAR-10913] c14 N72-16282

SIZE SEPARATION

Method and apparatus for precision sizing and joining of large diameter tubes by bulging or constricting overlapping ends
[NASA-CASE-INP-05114-2] c15 N71-26148

Device which separates and screens particles of soil samples for vidicon viewing in vacuum and reduced gravity environments
[NASA-CASE-INP-09770-3] c11 N71-27036

SIZING (SHAPING)

Method and apparatus for shaping and joining large diameter metal tubes using magnetomotive forces
[NASA-CASE-INP-05114] c15 N71-17650

SIZING SCREENS

Method for making screen with unlimited fineness of mesh and screen thickness
[NASA-CASE-XLE-00953] c15 N71-15966

Screen particle separator for soil samples
[NASA-CASE-INP-09770-2] c15 N72-22483

SKEWNESS

Tape guidance system for multichannel digital recording system
[NASA-CASE-INP-09453] c08 N71-19420

Automatic character skew and spacing checking network --- of digital tape drive systems
[NASA-CASE-GSC-11925-1] c33 N76-18353

SKID LANDINGS

Nose gear steering system for vehicles with main skids to provide directional stability after loss of aerodynamic control
[NASA-CASE-XLA-01804] c02 N70-34160

SKIN (ANATOMY)

Conditioning tanned sharkskin for use as abrasive resistant clothing
[NASA-CASE-XMS-09691-1] c18 N71-15545

Percutaneous connector device
[NASA-CASE-KSC-10849-1] c52 N77-14738

SKIN (STRUCTURAL MEMBERS)

Development of resilient fastener for attaching skin of aerospace vehicles to permit movement of skin relative to framework
[NASA-CASE-XLA-01027] c31 N71-24035

SKIN TEMPERATURE (BIOLOGY)

Thermistor holder for skin temperature measurements
[NASA-CASE-ARC-10855-1] c52 N77-10780

SKIN TEMPERATURE (NON-BIOLOGICAL)

Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin
[NASA-CASE-XPR-03802] c33 N71-23085

SKIRTS

Inflatable rocket engine nozzle skirt with transpiration cooling
[NASA-CASE-MPS-20619] c28 N72-11708

SKY

Camera arrangement --- for satellite scanning of earth or sky
[NASA-CASE-GSC-12032-2] c35 N76-19408

SLEEP

Development of apparatus and method for quantitatively measuring brain activity as automatic indication of sleep state and level of consciousness
[NASA-CASE-MSC-13282-1] c05 N71-24729

SLEEVES

Nonreusable energy absorbing device comprising ring member with plurality of recesses, cutting members, and guide member mounted in each recess
[NASA-CASE-INP-10040] c15 N71-22877

System for enhancing tool-exchange capabilities of a portable wrench
[NASA-CASE-MPS-22283-1] c37 N75-33395

SLENDER BODIES

Support techniques for restraint of slender bodies such as launch vehicles
[NASA-CASE-XLA-02704] c11 N69-21540

SLICING

An improved system for slicing silicon wafers
[NASA-CASE-NPO-14406-1] c31 N79-10245

SLIDING CONTACT

Electrical connector pin with wiping action to assure reliable contact
[NASA-CASE-INP-04238] c09 N69-39734

Development of slip ring assembly with inner and outer peripheral surfaces used as electrical contacts for brushes
[NASA-CASE-INP-01049] c15 N71-23049

SLIDING FRICTION

Bearing material --- composite material with low friction surface for rolling or sliding contact
[NASA-CASE-LEW-11930-1] c24 N76-22309

SLIP CASTING

Freeze casting of metal ceramic and refractory compound powders into plastic slips
[NASA-CASE-XLE-00106] c15 N71-16076

SLITS

Slit regulated gas journal bearing
[NASA-CASE-INP-00476] c15 N70-38620

Method of fabricating an object with a thin wall having a precisely shaped slit
[NASA-CASE-LAR-10409-1] c31 N74-21059

Dual acting slit control mechanism
[NASA-CASE-LAR-11370-1] c35 N78-32399

SLOPES

Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367

SLOT ANTENNAS

Planar array circularly polarized antenna with wall slot excitation
[NASA-CASE-NPO-10301] c07 N72-11148

Omnidirectional antenna array with circumferential slots for mounting on cylindrical space vehicle
[NASA-CASE-LAR-10163-1] c09 N72-25247

Circularly polarized antenna with linearly polarized pair of elements
[NASA-CASE-ERC-10214] c09 N72-31235

Turnstile slot antenna
[NASA-CASE-GSC-11428-1] c32 N74-20864

Horn antenna having V-shaped corrugated slots
[NASA-CASE-LAR-11112-1] c32 N76-15330

SLOTS

Belleville spring assembly with elastic guides having low hysteresis
[NASA-CASE-INP-09452] c15 N69-27504

Direct lift control system having flaps with slots adjacent to their leading edge and particularly adapted for lightweight aircraft
[NASA-CASE-LAR-10249-1] c02 N71-26110

Slotted fine-adjustment support for optical devices
[NASA-CASE-MPS-20249] c15 N72-11386

Method and tool for machining a transverse slot about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249

SLURRY PROPELLANTS

Apparatus for producing hydrocarbon slurry containing small particles of magnesium for use as jet aircraft fuel
[NASA-CASE-XLE-00010] c15 N70-33382

SMOKE

Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-INP-01310] c33 N71-28852

Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656

Smoke generator
[NASA-CASE-ARC-10905-1] c37 N77-13418

Smokestack-mounted airfoil
[NASA-CASE-LAR-11669-1] c45 N79-10570

SODIUM CHLORIDES

Composition of diffuse reflective coating containing sodium chloride in combination with diol solvent and organic wetting and drying agents
[NASA-CASE-GSC-11214-1] c06 N73-13128

SOFT LANDING

SUBJECT INDEX

A reverse osmosis membrane of high urea rejection properties
[NASA-CASE-ARC-10980-1] c27 N77-18265

SOFT LANDING

Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-3486

Spacecraft shock absorbing system for soft landings
[NASA-CASE-INP-02108] c31 N70-36845

Payload soft landing system using stowable gas bag
[NASA-CASE-XLA-09881] c31 N71-16085

SOFT LANDING SPACECRAFT

Pivotal shock absorbing assembly for use as load distributing portion in landing gear systems of space vehicles
[NASA-CASE-INP-03856] c31 N70-34159

SOIL MECHANICS

Penetrometer --- for determining load bearing characteristics of inclined surfaces
[NASA-CASE-NPO-11103-1] c35 N77-27367

SOIL SCIENCE

Auger-type soil penetrometer for burrowing into soil formations
[NASA-CASE-INP-05530] c14 N73-32321

SOILS

Penetrometer for empirically determining load-bearing characteristics of inclined surfaces of remotely located bodies of soil
[NASA-CASE-NPO-11103] c14 N72-21406

Screen particle separator for soil samples
[NASA-CASE-INP-09770-2] c15 N72-22483

Soil burrowing mole apparatus
[NASA-CASE-INP-07169] c15 N73-32362

Remote sensing of vegetation and soil using microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529

A system for plotting subsoil structure and method therefor
[NASA-CASE-NPO-14191-1] c46 N79-20555

SOL-GEL PROCESSES

Alkali-metal silicate binders and methods of manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217

SOLAR ACTIVITY

Radiometric measuring system for solar activity and atmospheric attenuation and emission
[NASA-CASE-ERC-10276] c14 N73-26432

SOLAR ARRAYS

Deployable cantilever support for deploying solar cell arrays aboard spacecraft and reducing transient loading
[NASA-CASE-NPO-10883] c31 N72-22874

Electrical interconnection of unilluminated solar cells in solar battery array
[NASA-CASE-GSC-10344-1] c03 N72-27053

Development of solar energy powered heliotope assembly to orient solar array toward sun
[NASA-CASE-GSC-10945-1] c21 N72-31637

Method of making silicon solar cell array --- and mounting on flexible substrate
[NASA-CASE-LEW-11069-1] c44 N74-14784

A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N77-28585

Solar cell shingle
[NASA-CASE-LEW-12587-1] c44 N77-31601

Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441

Method of construction of a multi-cell solar array
[NASA-CASE-MFS-23540-1] c44 N78-17468

Double-sided solar cell package
[NASA-CASE-NPO-14199-1] c44 N78-22470

A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-3] c44 N78-25560

Hexagon solar power panel
[NASA-CASE-NPO-12148-1] c44 N78-27515

Solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N79-17314

An improved solar panel and method for fabricating the same
[NASA-CASE-NPO-14490-1] c44 N79-18445

Closed loop solar array-ion thruster system with power control circuitry
[NASA-CASE-LEW-12780-1] c20 N79-20179

SOLAR CELLS

Fabricating solar cells with dielectric layers

to improve glass fusion
[NASA-CASE-IGS-04531] c03 N69-24267

Solar radiation direction detector and device for compensating degradation of photocells
[NASA-CASE-XLA-00183] c14 N70-40239

Attitude control system for spacecraft based on conversion of incident solar radiation on movable control surfaces into mechanical torques
[NASA-CASE-INP-02982] c31 N70-41855

Simulating voltage-current characteristic curves of solar cell panel with different operational parameters
[NASA-CASE-XMS-01554] c10 N71-10578

Doping silicon material with gadolinium to increase radiation resistance of solar cells
[NASA-CASE-XLE-02792] c26 N71-10607

Modifying existing solar cells for temperature control
[NASA-CASE-NPO-10109] c03 N71-11049

Solar battery with interconnecting means for plural cells
[NASA-CASE-INP-06506] c03 N71-11050

Fabrication methods for matrices of solar cell submodules
[NASA-CASE-INP-05821] c03 N71-11056

Metal strip mounting arrangement for solar cell arrays on spacecraft
[NASA-CASE-IGS-01475] c03 N71-11058

Conductor for connecting parallel cells into submodules in series to form solar cell matrix
[NASA-CASE-NPO-10821] c03 N71-19545

Space erectable rollup solar array of arcuate solar panels furled on tapered drum for spacecraft storage during launch
[NASA-CASE-NPO-10188] c03 N71-20273

Electrode connection for n-on-p silicon solar cell
[NASA-CASE-XLE-04787] c03 N71-20492

Fabrication of solar cell banks for attaching solar cells to base members or substrates
[NASA-CASE-INP-00826] c03 N71-20895

Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor
[NASA-CASE-INP-01960] c09 N71-23027

Gadolinium or samarium doped-silicon semiconductor material with resistance to radiation damage for use in solar cells
[NASA-CASE-XLE-10715] c26 N71-23292

Maintaining current flow through solar cells with open connection using shunting diode
[NASA-CASE-XLE-04535] c03 N71-23354

Metal pattern bonding technique for cover glass attachment to silicon solar cells for space applications
[NASA-CASE-XLE-08569] c03 N71-23449

Addition of group 3 elements to silicon semiconductor material for increased resistance to radiation damage in solar cells
[NASA-CASE-XLE-02798] c26 N71-23654

Method of attaching cover glass to silicon solar cell without using adhesive
[NASA-CASE-XLE-08569-2] c03 N71-24681

Method and apparatus for fabricating solar cell panels
[NASA-CASE-INP-03413] c03 N71-26726

Development and characteristics of solar cells with phosphors in cover glass to improve response to solar ultraviolet radiation
[NASA-CASE-ARC-10050] c03 N71-33409

Electrically coupled individually encapsulated solar cell matrix
[NASA-CASE-NPO-11190] c03 N71-38044

Recovering efficiency of solar cells damaged by environmental radiation through thermal annealing
[NASA-CASE-IGS-04047-2] c03 N72-11062

Spacecraft solar cell system with switching circuit to provide compensation for environmental changes
[NASA-CASE-GSC-10669-1] c03 N72-20031

Test method and equipment for identifying faulty cells or connections in solar cell assemblies
[NASA-CASE-NPO-10401] c03 N72-20033

Electrically connected matrix of discrete solar cell blanks
[NASA-CASE-NPO-10591] c03 N72-22041

Solar cell panel with light transmitting cover plate

SUBJECT INDEX

SOLAR ENERGY

[NASA-CASE-NPO-10747] c03 N72-22042
Development of process for constructing protective covers for solar cells
[NASA-CASE-GSC-11514-1] c03 N72-24037
Apparatus for applying thin glass slides to solar cells
[NASA-CASE-NPO-10575] c03 N72-25019
Electrical interconnection of unilluminated solar cells in solar battery array
[NASA-CASE-GSC-10344-1] c03 N72-27053
Rectangular solar cell stacked panels to generate electrical power aboard spacecraft
[NASA-CASE-NPO-11771] c03 N73-20040
Method of making silicon solar cell array --- and mounting on flexible substrate
[NASA-CASE-LEW-11069-1] c44 N74-14784
Covered silicon solar cells and method of manufacture --- with polymeric films
[NASA-CASE-LEW-11065-2] c44 N76-14600
Fabrication of polycrystalline solar cells on low-cost substrates
[NASA-CASE-GSC-12022-1] c44 N76-28635
Solar cell grid patterns
[NASA-CASE-NPO-13087-2] c44 N76-31666
Photovoltaic cell array
[NASA-CASE-NFS-22458-1] c44 N77-10635
Silicon nitride coated, plastic covered solar cell
[NASA-CASE-LEW-11496-1] c44 N77-14580
Solar cell assembly --- for use under high intensity illumination
[NASA-CASE-LEW-11549-1] c44 N77-19571
Horizontally mounted solar collector
[NASA-CASE-NFS-23349-1] c44 N77-30613
High voltage, high current Schottky barrier solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526
An improved solar concentrator
[NASA-CASE-NFS-23727-1] c44 N78-13556
Shunt regulation electric power system
[NASA-CASE-GSC-10135] c33 N78-17296
Solar cell angular position transducer
[NASA-CASE-LAR-11999-1] c35 N78-18394
Double-sided solar cell package
[NASA-CASE-NPO-14199-1] c44 N78-22470
Process for utilizing low-cost graphite substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609
Method of making encapsulated solar cell modules
[NASA-CASE-LEW-12185-1] c44 N78-25528
Method for producing solar energy panels by automation
[NASA-CASE-LEW-12541-1] c44 N78-25529
Solar cell system having alternating current output
[NASA-CASE-LEW-12806-1] c44 N78-25553
A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-3] c44 N78-25560
Hexagon solar power panel
[NASA-CASE-NPO-12148-1] c44 N78-27515
Self-reconfiguring solar cell system
[NASA-CASE-LEW-12586-1] c44 N78-27520
An improved solar cell and method of forming the same
[NASA-CASE-NPO-14205-1] c44 N78-27541
Driver for solar cell I-V characteristic plots
[NASA-CASE-NPO-14096-1] c44 N78-28625
An improved solar cell module
[NASA-CASE-NPO-14467-1] c44 N79-10529
Application of semiconductor diffusants to solar cells by screen printing
[NASA-CASE-LEW-12775-1] c44 N79-11468
Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in P-N junction solar cells
[NASA-CASE-NPO-14100-1] c44 N79-12541
Back wall solar cell
[NASA-CASE-LEW-12236-2] c44 N79-14528
Method of mitigating titanium impurities effects in P-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N79-17315
Method for fabricating solar cells having integrated collector grids
[NASA-CASE-LEW-12819-2] c44 N79-18444
Method and apparatus for fabricating improved solar cell modules
[NASA-CASE-NPO-14416-1] c44 N79-18446
Solar cell module assembly jig
[NASA-CASE-XGS-00829-1] c44 N79-19447

SOLAR COLLECTORS

Expanding and contracting connector strip for solar cell array of Nimbus satellite
[NASA-CASE-XGS-01395] c03 N69-21539
Concentrator device for controlling direction of solar energy onto energy converters
[NASA-CASE-XLE-01716] c09 N70-40234
Space erectable rollup solar array of arcuate solar panels furled on tapered drum for spacecraft storage during launch
[NASA-CASE-NPO-10188] c03 N71-20273
Storage stable, thermally activated foaming compositions for erecting and rigidizing mechanisms of thin sheet solar collectors
[NASA-CASE-LAR-10373-1] c18 N71-26155
Development and characteristics of solar cells with phosphors in cover glass to improve response to solar ultraviolet radiation
[NASA-CASE-ARC-10050] c03 N71-33409
Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking
[NASA-CASE-NFS-23267-1] c35 N77-20401
Solar energy collection system
[NASA-CASE-NPO-13579-2] c44 N77-20565
Low cost solar energy collection system
[NASA-CASE-NPO-13579-3] c44 N77-20566
Solar cell shingle
[NASA-CASE-LEW-12587-1] c44 N77-31601
Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-NFS-23518-2] c44 N77-31611
Solar energy collection system
[NASA-CASE-NPO-13810-1] c44 N77-32582
Three-dimensional tracking solar energy concentrator and method for making same
[NASA-CASE-NPO-13736-1] c44 N77-32583
Portable linear-focused solar thermal energy collecting system
[NASA-CASE-NPO-13734-1] c44 N78-10554
Solar heating system
[NASA-CASE-LAR-12009-1] c44 N78-15560
Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460
Selective coating for solar panels --- using black chrome and black nickel
[NASA-CASE-LEW-12159-1] c44 N78-19599
Combined solar collector and energy storage system
[NASA-CASE-LAR-12205-1] c44 N78-23567
Solar cell collector
[NASA-CASE-LEW-12552-1] c44 N78-25527
Non-tracking solar energy collector system
[NASA-CASE-NPO-13813-1] c44 N78-31526
Solar cells having integral collector grids
[NASA-CASE-LEW-12819-1] c44 N79-11467
Method for making an aluminum or copper substrate panel for selective absorption of solar energy
[NASA-CASE-NFS-23518-1] c44 N79-11469
Non-tracking solar energy collector system
[NASA-CASE-NPO-13817-1] c44 N79-11471
Solar cell collector and method for producing same
[NASA-CASE-LEW-12552-2] c44 N79-11472
An improved solar panel and method for fabricating the same
[NASA-CASE-NPO-14490-1] c44 N79-18445
Electromagnetic radiation energy arrangement --- coatings for solar energy absorption and infrared reflection
[NASA-CASE-WOO-00428-1] c32 N79-19186
An improved solar energy receiver for a stirling engine
[NASA-CASE-NPO-14619-1] c44 N79-20513
SOLAR ELECTRIC PROPULSION
Closed Loop solar array-ion thruster system with power control circuitry
[NASA-CASE-LEW-12780-1] c20 N79-20179
SOLAR ENERGY
Rectangular solar cell stacked panels to generate electrical power aboard spacecraft
[NASA-CASE-NPO-11771] c03 N73-20040
Solar energy power system --- using Freon
[NASA-CASE-NFS-21628-1] c44 N75-32581
Thermostatically controlled non-tracking type solar energy concentrator
[NASA-CASE-NPO-13497-1] c44 N76-14602
Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580

SOLAR ENERGY ABSORBERS

SUBJECT INDEX

Three-dimensional tracking solar energy concentrator and method for making same
[NASA-CASE-NPO-13736-1] c44 N77-32583

Solar heating system
[NASA-CASE-LAR-12009-1] c44 N78-15560

Method for producing solar energy panels by automation
[NASA-CASE-LEW-12541-1] c44 N78-25529

An improved solar cell module
[NASA-CASE-NPO-14467-1] c44 N79-10529

Method for making an aluminum or copper substrate panel for selective absorption of solar energy
[NASA-CASE-MFS-23518-1] c44 N79-11469

Primary reflector for solar energy collection systems
[NASA-CASE-NPO-13579-4] c44 N79-14529

SOLAR ENERGY ABSORBERS

Panel for selectively absorbing solar thermal energy and the method of producing said panel
[NASA-CASE-MFS-22562-1] c44 N76-14595

Solar energy absorber
[NASA-CASE-MFS-22743-1] c44 N76-22657

Solar energy trap
[NASA-CASE-MFS-22744-1] c44 N76-24696

Solar cell shingle
[NASA-CASE-LEW-12587-1] c44 N77-31601

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-MFS-23518-2] c44 N77-31611

Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-MFS-23518-3] c44 N78-25557

Electromagnetic radiation energy arrangement --- coatings for solar energy absorption and infrared reflection
[NASA-CASE-WOO-00428-1] c32 N79-19186

SOLAR ENERGY CONVERSION

Solar energy power system
[NASA-CASE-MFS-21628-2] c44 N76-23675

Horizontally mounted solar collector
[NASA-CASE-MFS-23349-1] c44 N77-30613

High voltage, high current Schottky barrier solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526

An improved solar concentrator
[NASA-CASE-MFS-23727-1] c44 N78-13556

Method of construction of a multi-cell solar array
[NASA-CASE-MFS-23540-1] c44 N78-17468

Process for utilizing low-cost graphite substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609

Solar photolysis of water
[NASA-CASE-NPO-14126-1] c44 N79-11470

Thermal energy transformer
[NASA-CASE-NPO-14058-1] c44 N79-18443

SOLAR FLUX

A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-3] c44 N78-25560

SOLAR FURNACES

Lens assembly for solar furnace or solar simulator
[NASA-CASE-XNP-04111] c14 N71-15622

SOLAR GENERATORS

Describing method for vapor deposition of gallium arsenide films to manganese substrates to provide semiconductor devices with low resistance substrates
[NASA-CASE-XNP-01328] c26 N71-18064

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

SOLAR GRAVITATION

Table structure and rotating magnet system simulating gravitational forces on spacecraft and displaying trajectories between Earth, Venus, and Mercury
[NASA-CASE-XNP-00708] c14 N70-35394

SOLAR HEATING

Portable linear-focused solar thermal energy collecting system
[NASA-CASE-NPO-13734-1] c44 N78-10554

Solar heating system
[NASA-CASE-LAR-12009-1] c44 N78-15560

Combined solar collector and energy storage system
[NASA-CASE-LAR-12205-1] c44 N78-23567

SOLAR OBSERVATORIES

Light sensitive control system for automatically opening and closing dome of solar optical telescope
[NASA-CASE-MSC-10966] c14 N71-19568

SOLAR PONDS (HEAT STORAGE)

Solar pond
[NASA-CASE-NPO-13581-2] c44 N78-31525

SOLAR POSITION

Sun angle calculator
[NASA-CASE-MSC-12617-1] c35 N76-29552

SOLAR RADIATION

Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675

Design and characteristics of device for sensing solar radiation and providing spacecraft attitude control to maintain direction with respect to incident radiation
[NASA-CASE-XNP-05535] c14 N71-23040

Utilization of solar radiation by solar still for converting salt and brackish water into potable water
[NASA-CASE-XNS-04533] c15 N71-23086

Wide angle sun sensor --- consisting of cylinder, insulation and pair of detectors
[NASA-CASE-NPO-13327-1] c35 N75-23910

Particulate and solar radiation stable coating for spacecraft
[NASA-CASE-LAR-10805-2] c34 N77-18382

SOLAR RADIO EMISSION

System generating sidereal frequency signals from signals of standard solar frequency without use of mixing operations or feedback loops
[NASA-CASE-XGS-02610] c14 N71-23174

SOLAR REFLECTORS

Foldable, double cone and parabolic reflector system for solar ray concentration
[NASA-CASE-XLA-04622] c03 N70-41580

Modifying existing solar cells for temperature control
[NASA-CASE-NPO-10109] c03 N71-11049

Fabrication of curved reflector segments for solar mirror
[NASA-CASE-XLE-08917] c15 N71-15597

Thermal pump-compressor for converting solar energy
[NASA-CASE-XLA-00377] c33 N71-17610

Forming mold for polishing and machining curved solar magnesium reflector with reinforcing ribs
[NASA-CASE-XLE-08917-2] c15 N71-24836

Inorganic thermal control and solar reflector coatings
[NASA-CASE-MFS-20011] c18 N72-22566

Solar energy collection system
[NASA-CASE-NPO-13579-2] c44 N77-20565

Low cost solar energy collection system
[NASA-CASE-NPO-13579-3] c44 N77-20566

Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933

Primary reflector for solar energy collection systems
[NASA-CASE-NPO-13579-4] c44 N79-14529

SOLAR SAILS

Strong thin membrane structure
[NASA-CASE-NPO-14021-1] c27 N77-32313

SOLAR SENSORS

Sensor consisting of photocells mounted on pyramidal base for improved pointing accuracy of planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736

Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators
[NASA-CASE-XNP-00465] c21 N70-35395

Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-XGS-01159] c21 N71-10678

Solar sensor with coarse and fine sensing elements for matching preirradiated cells on degradation rates
[NASA-CASE-XLA-01584] c14 N71-23269

Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951

Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N79-14526

SOLAR SIMULATORS

Lens assembly for solar furnace or solar simulator

SUBJECT INDEX

SOLID ROCKET PROPELLANTS

[NASA-CASE-INP-04111] c14 N71-15622
High powered arc electrodes --- producing solar simulator radiation
[NASA-CASE-LEW-11162-1] c33 N74-12913

SOLDERED JOINTS
Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214

SOLDERING
Hydrazine monoperfluoro alkanoate solder flux leaving corrosion resistant coating, for metals such as copper
[NASA-CASE-XNP-03459-2] c18 N71-15688
Metal soldering with hydrazine monoperfluoro alkanoate for corrosion resistant coatings
[NASA-CASE-XNP-03459] c15 N71-21078
Method of plating copper on aluminum to permit conventional soldering of structural aluminum bodies
[NASA-CASE-XLA-08966-1] c17 N71-25903
Device for resistance soldering electrical leads to solder cups of multiple terminal block
[NASA-CASE-GSC-10913] c15 N72-22491
Development of electrical system for indicating optimum contact between electrode and metal surface to permit improved soldering operation
[NASA-CASE-KSC-10242] c15 N72-23497

SOLDERS
Solder coating process for printed copper circuit protection
[NASA-CASE-INP-01599] c09 N71-20705
Method for attaching a fused-quartz mirror to a conductive metal substrate
[NASA-CASE-MFS-23405-1] c26 N77-29260

SOLENOID VALVES
Solenoid two-step valve for bipropellant flow rate control to rocket engine
[NASA-CASE-XNS-04890-1] c15 N70-22192
Automatic recording McLeod gage with three electrodes and solenoid valve connection
[NASA-CASE-XLE-03280] c14 N71-23093
Solenoid valve including guide for armature and valve member
[NASA-CASE-GSC-10607-1] c15 N72-20442
Remote fire stack igniter --- with solenoid-controlled valve
[NASA-CASE-MFS-21675-1] c25 N74-33378
Automatically operable self-leveling load table
[NASA-CASE-MFS-22039-1] c09 N75-12968

SOLENOIDS
Water cooled solenoid capable of producing magnetic field intensities up to 100 kilogauss
[NASA-CASE-INP-01951] c09 N70-41929
Automatic power supply circuit design for driving inductive loads and minimizing power consumption including solenoid example
[NASA-CASE-NPO-10716] c09 N71-24892
Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly --- for use with cameras mounted in satellites
[NASA-CASE-GSC-11560-1] c33 N74-20861
Sprag solenoid brake --- development and operations of electrically controlled brake
[NASA-CASE-MFS-21846-1] c37 N74-26976

SOLID ELECTRODES
Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N78-25391

SOLID LUBRICANTS
Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-XMS-00259] c18 N70-36400
Solid lubricant applied to porous roller bearings prior to use in ultrahigh vacuum
[NASA-CASE-XLE-09527] c15 N71-17688
Preparation of inorganic solid film lubricants with long wear life and stability in aerospace environments
[NASA-CASE-XNP-03988] c15 N71-21403
Development of rolling element bearing for operation in ultrahigh vacuum environment
[NASA-CASE-XLE-09527-2] c15 N71-26189
Method of making bearing materials --- self-lubricating, oxidation resistant composites for high temperature applications
[NASA-CASE-LEW-11930-4] c24 N79-17916

SOLID PROPELLANT IGNITION

Solid propellant ignition with hypergolic fluid injected to predetermined portions of propellant
[NASA-CASE-XLE-00207] c28 N70-33375
Method for igniting solid propellant rocket motors by injecting hypergolic fluids
[NASA-CASE-XLE-01988] c27 N71-15634
Molded composite pyrogen igniter for rocket motors --- solid propellant ignition
[NASA-CASE-LAR-12018-1] c20 N78-24275

SOLID PROPELLANT ROCKET ENGINES
Spherical solid propellant rocket engine design
[NASA-CASE-XLA-00105] c28 N70-33331
Mandrel for shaping solid propellant rocket fuel into engine casing
[NASA-CASE-XLA-00304] c27 N70-34783
Spherical solid propellant rocket engine having abrupt burnout
[NASA-CASE-XHQ-01897] c28 N70-35381
Grain configuration for solid propellant rocket engines
[NASA-CASE-XGS-03556] c27 N70-35534
Solid propellant rocket vehicle thrust control method and apparatus
[NASA-CASE-XNP-00217] c28 N70-38181
Steerable solid propellant rocket motor adapted to effect payload orientation as multistage rocket stage or reduce velocity as retrorocket
[NASA-CASE-XNP-00234] c28 N70-38645
Method of making solid propellant rocket motor having reliable high altitude capabilities, long shelf life, and capable of firing with nozzle closure with foamed plastic permanent mandrel
[NASA-CASE-XLA-04126] c28 N71-26779
Electrical failure detector in solid rocket propellant motor insulation against thermal degradation by fuel grain
[NASA-CASE-XNP-03968] c14 N71-27186
Solid propellant rocket engine with venting system to control effective nozzle throat area
[NASA-CASE-XNP-03282] c28 N72-20758
Thin walled nozzle with insulative nonablative coating for solid propellant rocket engines
[NASA-CASE-NPO-11458] c28 N72-23810
Characteristics of solid propellant rocket engine with controlled rate of thrust buildup operating in vacuum environment
[NASA-CASE-NPO-11559] c28 N73-24784
Space vehicle
[NASA-CASE-MFS-22734-1] c18 N75-19329
Solid propellant rocket motor and method of making same
[NASA-CASE-XLA-1349] c20 N77-17143
Molded composite pyrogen igniter for rocket motors --- solid propellant ignition
[NASA-CASE-LAR-12018-1] c20 N78-24275
Solid propellant motor
[NASA-CASE-NPO-11458A] c20 N78-32179

SOLID PROPELLANTS

Variable thrust ion engine using thermal decomposition of solid cesium compound to produce propulsive vapor
[NASA-CASE-XNP-00923] c28 N70-36802
Photographic method for measuring viscoelastic strain in solid propellants and other materials
[NASA-CASE-XNP-01153] c32 N71-17645
Ethylene oxide sterilization and encapsulating process for sterile preservation of instruments and solid propellants
[NASA-CASE-XNP-09763] c14 N71-20461
Chemical process for production of polyisobutylene compounds and application as solid rocket propellant binder
[NASA-CASE-NPO-10893] c27 N73-22710
Silicone containing solid propellant
[NASA-CASE-NPO-14477-1] c28 N79-10224
A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-MFS-23904-1] c20 N79-13077

SOLID ROCKET BINDERS
Liner for hybrid solid propellants to bind propellant to rocket motor case
[NASA-CASE-XNP-09744] c27 N71-16392

SOLID ROCKET PROPELLANTS
Using ethylene oxide in preparation of sterilized solid rocket propellants and

SOLID STATE

encapsulating materials
[NASA-CASE-XNP-01749] c27 N70-41897
Pressurized gas injection for burning rate
control of solid propellants
[NASA-CASE-XLE-03494] c27 N71-21819
Solid propellant stabilizer containing
nitroguanidine
[NASA-CASE-NPO-12000] c27 N72-25699
Solid propellant containing hydrazinium
nitroformate oxidizer and polymeric
hydrocarbon binder
[NASA-CASE-NPO-12015] c27 N73-16764
Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209
Casting propellant in rocket engine
[NASA-CASE-LAR-11995-1] c28 N77-10213
Solid propellant rocket motor and method of
making same
[NASA-CASE-XLA-1349] c20 N77-17143

SOLID STATE
Solid state chemical source for ammonia beam
masers
[NASA-CASE-IGS-01504] c16 N70-41578

SOLID STATE DEVICES
Solid state switching circuit design to increase
current capacity of low rated relay contacts
[NASA-CASE-XNP-09228] c09 N69-27500
Temperature compensated solid state differential
amplifier with application in
bioinstrumentation circuits
[NASA-CASE-XAC-00435] c09 N70-35440
Solid state device for mapping flux and power in
nuclear reactor cores
[NASA-CASE-XLE-00301] c14 N70-36808
Solid state operational integrator
[NASA-CASE-NPO-10230] c09 N71-12520
Microwave power receiving antenna solving heat
dissipation problems by construction of
elements as heat pipe devices
[NASA-CASE-NFS-20333] c09 N71-13486
Computer circuit performing both counting and
shifting logic operations also capable of
miniaturization and integration in basic
circuits
[NASA-CASE-XNP-01753] c08 N71-22897
Solid state television camera system consisting
of monolithic semiconductor mosaic sensor and
molecular digital readout systems
[NASA-CASE-XNP-06092] c07 N71-24612
Solid state circuit for switching alternating
current input signal as function of direct
current gating transistor
[NASA-CASE-XNP-06505] c10 N71-24799
Solid state force measuring electromechanical
transducers made of piezoresistive materials
[NASA-CASE-ERC-10088] c26 N71-25490
Development and characteristics of solid state
acoustic variable time delay line using direct
current voltage and radio frequency pulses
[NASA-CASE-ERC-10032] c10 N71-25900
Solid state broadband stable power amplifier
[NASA-CASE-XNP-10854] c10 N71-26331
Solid state remote circuit selector switching
circuit
[NASA-CASE-LEW-10387] c09 N72-22201
Radio frequency controlled solid state switch
[NASA-CASE-ARC-10136-1] c09 N72-22202
Development of thermal to electric power
conversion system using solid state switches
of electrical currents to load for Seebeck
effect compensation
[NASA-CASE-NPO-11388] c03 N72-23048
Solid state switch for variable circuit switching
[NASA-CASE-NPO-10817-1] c08 N73-30135
Full wave modulator-demodulator amplifier
apparatus --- for generating rectified output
signal
[NASA-CASE-PRC-10072-1] c33 N74-14939
Traveling wave solid state amplifier utilizing a
semiconductor with negative differential
mobility
[NASA-CASE-HQN-10069] c33 N75-27251
Dual mode solid state power switch
[NASA-CASE-NFS-22880-1] c33 N76-31410
Solid-state current transformer
[NASA-CASE-NFS-22560-1] c33 N77-14335
Space-charge-limited solid-state triode
[NASA-CASE-NPO-13060-1] c33 N79-11314

SUBJECT INDEX

SOLID SURFACES
Dye penetrant and technique for nondestructive
tests of solid surfaces contacted by liquid
oxygen
[NASA-CASE-XMF-02221] c18 N71-27170

SOLID WASTES
Process of forming catalytic surfaces for wet
oxidation reactions
[NASA-CASE-MSC-14831-1] c25 N78-10225

SOLIDIFICATION
Preparation of monotectic alloys having a
controlled microstructure by directional
solidification under dopant-induced interface
breakdown
[NASA-CASE-NFS-23816-1] c26 N79-16943

SOLOBILITY
Fireproof potassium silicate coating
composition, insoluble in water after
application
[NASA-CASE-GSC-10072] c18 N71-14014
Formulated plastic separators for soluble
electrode cells
[NASA-CASE-LEW-12358-2] c25 N78-25149

SOLUTES
Specific wavelength colorimeter --- for
measuring given solute concentration in test
sample
[NASA-CASE-MSC-14081-1] c35 N74-27860

SONIC BOOMS
Instrumentation for measurement of aircraft
noise and sonic boom
[NASA-CASE-LAR-11173-1] c35 N75-19614
Instrumentation for measuring aircraft noise and
sonic boom
[NASA-CASE-LAR-11476-1] c07 N76-27232

SORBATES
Apparatus for measuring a sorbate dispersed in a
fluid stream
[NASA-CASE-ARC-10896-1] c35 N78-19465

SORET COEFFICIENT
Method of growing composites of the type
exhibiting the Soret effect --- improved
structure of eutectic alloy crystals
[NASA-CASE-NFS-22926-1] c24 N77-27187

SOUND GENERATORS
Ejectable underwater sound source recovery
assembly
[NASA-CASE-LAR-10595-1] c35 N74-16135

SOUND LOCALIZATION
Resolution enhanced sound detecting apparatus
--- wind tunnel apparatus for airframe noise
localization
[NASA-CASE-NPO-14134-1] c71 N78-19898

SOUND PRESSURE
Instrumentation for measurement of aircraft
noise and sonic boom
[NASA-CASE-LAR-11173-1] c35 N75-19614
Differential sound level meter
[NASA-CASE-LAR-12106-1] c71 N78-14867

SOUND TRANSDUCERS
Method and transducer device for detecting
presence of hydrogen gas
[NASA-CASE-XMF-03873] c06 N69-39733
Sensor for detecting and measuring energy,
velocity and direction of travel of a cosmic
dust particle
[NASA-CASE-GSC-10503-1] c14 N72-20381
Resolution enhanced sound detecting apparatus
--- wind tunnel apparatus for airframe noise
localization
[NASA-CASE-NPO-14134-1] c71 N78-19898

SOUND WAVES
Piezoelectric transducer for monitoring sound
waves of physiological origin
[NASA-CASE-IMS-05365] c14 N71-22993
Material suspension within an acoustically
excited resonant chamber --- at near
weightless conditions
[NASA-CASE-NPO-13263-1] c12 N75-24774
Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130
Acoustic energy shaping
[NASA-CASE-NPO-13802-1] c71 N78-10837
Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827

SOUNDING ROCKETS
Development of attitude control system for
sounding rocket stabilization during ballistic
phase of flight

SUBJECT INDEX

SPACE NAVIGATION

- [NASA-CASE-XGS-01654] c31 N71-24750
- System for deploying and ejecting releasable clamshell fairing sections from spinning sounding rockets
- [NASA-CASE-GSC-10590-1] c31 N73-14853
- SPACE BASES**
- Structural members, method and apparatus
- [NASA-CASE-MSC-16217-1] c18 N78-22146
- SPACE CAPSULES**
- Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
- [NASA-CASE-XMF-00641] c31 N70-36410
- Design and configuration of manned space capsule
- [NASA-CASE-XLA-01332] c31 N71-15664
- Describing assembly for opening stabilizing and decelerating flaps of flight capsules used in space research
- [NASA-CASE-XMF-03169] c31 N71-15675
- SPACE CHARGE**
- Space-charge-limited solid-state triode
- [NASA-CASE-NPO-13064-1] c33 N79-11314
- SPACE COMMUNICATION**
- Radio receiver with array of independently steerable antennas for deep space communication
- [NASA-CASE-XLA-00901] c07 N71-10775
- Design and development of tracking receiver for tracking satellites and receiving radio signal transmissions under adverse noise conditions
- [NASA-CASE-XGS-08679] c10 N71-21473
- Development of antenna system for spin stabilized communication satellite for simultaneous reception and transmission of data
- [NASA-CASE-XGS-02607] c31 N71-23009
- Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
- [NASA-CASE-NPO-13545-1] c32 N77-12240
- SPACE ENVIRONMENT SIMULATION**
- Simulating voltage-current characteristic curves of solar cell panel with different operational parameters
- [NASA-CASE-XMS-01554] c10 N71-10578
- Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
- [NASA-CASE-XLE-01182] c27 N71-15635
- Cable suspension and inclined walkway system for simulating reduced or zero gravity environments
- [NASA-CASE-XLA-01787] c11 N71-16028
- Space environment simulation system for measuring spacecraft electric field strength in plasma sheath
- [NASA-CASE-XLE-02038] c09 N71-16086
- Optical characteristics measuring apparatus
- [NASA-CASE-XNP-08840] c23 N71-16365
- Omnidirectional anisotropic molecular trap, used with vacuum pump to simulate space environments for testing spacecraft components
- [NASA-CASE-XGS-00783] c30 N71-17788
- Space environmental work simulator with portions of space suit mounted to vacuum chamber wall
- [NASA-CASE-XMF-07488] c11 N71-18773
- Low and zero gravity simulator for astronaut training
- [NASA-CASE-MPS-10555] c11 N71-19494
- Self lubricating fluoride-metal composite materials for outer space applications
- [NASA-CASE-XLE-08511] c18 N71-23710
- Test chamber for determining decomposition and autoignition of materials used in spacecraft under controlled environmental conditions
- [NASA-CASE-KSC-10198] c11 N71-28629
- Illumination system design for use as sunlight simulator in space environment simulators with multiple light sources reflected to single virtual source
- [NASA-CASE-HQN-10781] c23 N71-30292
- Pressure regulator for space suit worn underwater to simulate space environment for testing and experimentation
- [NASA-CASE-MPS-20332] c05 N72-20097
- SPACE ERECTABLE STRUCTURES**
- Self-erectable space structures of flexible foam for application in planetary orbits
- [NASA-CASE-XLA-00686] c31 N70-34135
- Manned space station collapsible for launching and self-erectable in orbit
- [NASA-CASE-XLA-00678] c31 N70-34296
- Manned space station launched in packaged condition and self erecting in orbit
- [NASA-CASE-XLA-00258] c31 N70-38676
- Collapsible, space erectable loop antenna system for space vehicle
- [NASA-CASE-XMF-00437] c07 N70-40202
- Erectable, inflatable, radio signal reflecting passive communication satellite
- [NASA-CASE-XLA-00210] c30 N70-40309
- Deployment system for flexible wing with rigid superstructure
- [NASA-CASE-XLA-01220] c02 N70-41863
- Capillary radiator for carrying heat transfer liquid in planetary spacecraft structures
- [NASA-CASE-XLE-03307] c33 N71-14035
- Describing apparatus for manufacturing operations in low and zero gravity environments of orbital space flight
- [NASA-CASE-MPS-20410] c15 N71-19214
- Space erectable rollup solar array of arcuate solar panels furled on tapered drum for spacecraft storage during launch
- [NASA-CASE-NPO-10188] c03 N71-20273
- Self erecting parabolic reflector design for use in space
- [NASA-CASE-XMS-03454] c09 N71-20658
- Pneumatic cantilever beams and platform for space erectable structure
- [NASA-CASE-XLA-01731] c32 N71-21045
- Hydraulic actuator design for space deployment of heat radiators
- [NASA-CASE-MSC-11817-1] c15 N71-26611
- Space expandable tether device for use as passageway between two docked spacecraft
- [NASA-CASE-XMS-10993] c15 N71-28936
- Expandable space frames with high expansion to collapse ratio
- [NASA-CASE-EBC-10365-1] c31 N73-32749
- Telescoping columns --- parabolic antenna support
- [NASA-CASE-LAR-12195-1] c37 N78-33446
- Apparatus for assembling space structure
- [NASA-CASE-MPS-23579-1] c18 N79-11108
- SPACE EXPLOURATION**
- Self-propelled vehicle with wheel, track laying, and walking capability for exploratory expolation
- [NASA-CASE-NPO-11366] c11 N73-26238
- SPACE FLIGHT**
- Portable environmental control and life support system for astronaut in and out of spacecraft
- [NASA-CASE-XMS-09632-1] c05 N71-11203
- Television simulation for aircraft and space flight
- [NASA-CASE-XPB-03107] c09 N71-19449
- SPACE FLIGHT FEEDING**
- Helmet feedport
- [NASA-CASE-XMS-09653] c54 N78-17680
- SPACE INDUSTRIALIZATION**
- Apparatus for assembling space structure
- [NASA-CASE-MPS-23579-1] c18 N79-11108
- SPACE MAINTENANCE**
- System for removing and repairing spacecraft control thrusters by use of portable air locks
- [NASA-CASE-MPS-20125] c28 N71-27095
- SPACE MANUFACTURING**
- Material suspension within an acoustically excited resonant chamber --- at near weightless conditions
- [NASA-CASE-NPO-13263-1] c12 N75-24774
- Method for manufacturing mirrors in zero gravity environment
- [NASA-CASE-MSC-12611-1] c12 N76-15189
- Apparatus for assembling space structure
- [NASA-CASE-MPS-23579-1] c18 N79-11108
- SPACE MISSIONS**
- Planetary atmospheric investigation using split trajectory dual flyby mode
- [NASA-CASE-XAC-08494] c30 N71-15990
- Elimination of tracking occultation problems occurring during continuous monitoring of interplanetary missions by using Earth orbiting communications satellite
- [NASA-CASE-XAC-06029-1] c31 N71-24813
- Design and development of space shuttle system for delivering payload to earth orbit or celestial orbit
- [NASA-CASE-MSC-12391] c30 N73-12884
- SPACE NAVIGATION**
- Electrical and electromechanical trigonometric

SPACE ORIENTATION

SUBJECT INDEX

- computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-XMF-00684] c21 N71-21688
- Momentum wheel design for spacecraft attitude control and magnetic drum and head system for data storage
[NASA-CASE-NPO-11481] c21 N73-13644
- Method for producing reticles for use in outer space
[NASA-CASE-GSC-11188-2] c21 N73-19630
- SPACE ORIENTATION**
- Sensing method and device for determining orientation of space vehicle or satellite by using particle traps
[NASA-CASE-XGS-00466] c21 N70-34297
- SPACE RENDEZVOUS**
- Method and apparatus for connecting two spacecraft with probe of one inserted in rocket engine nozzle of other spacecraft
[NASA-CASE-MFS-11133] c31 N71-16222
- SPACE SHUTTLE ORBITERS**
- Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671
- Variable dihedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132
- SPACE SHUTTLES**
- Designing spacecraft for flight into space, atmospheric reentry, and landing at selected sites
[NASA-CASE-XAC-02058] c02 N71-16087
- Design and development of space shuttle system for delivering payload to earth orbit or celestial orbit
[NASA-CASE-MSC-12391] c30 N73-12884
- Spacecraft configurations and aerodynamic characteristics of space shuttle systems with two reusable stages
[NASA-CASE-MSC-12433] c31 N73-14854
- Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system
[NASA-CASE-MSC-14245-1] c18 N75-27041
- Fused silicide coatings containing discrete particles for protecting niobium alloys --- used in space shuttle thermal protection systems and turbine engine components
[NASA-CASE-LEW-11179-1] c27 N76-16229
- Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120
- SPACE SIMULATORS**
- Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675
- Variable geometry manned orbital vehicle having high aerodynamic efficiency over wide speed range and incorporating auxiliary pivotal wings
[NASA-CASE-XLA-03691] c31 N71-15674
- Development of method and equipment for testing heat radiative properties of material under controlled environmental conditions
[NASA-CASE-MFS-20096] c14 N71-30026
- SPACE STATIONS**
- Manned space station launched in packaged condition and self erecting in orbit
[NASA-CASE-XLA-00258] c31 N70-38676
- Meteoroid impact position locator aid for manned space station
[NASA-CASE-LAR-10629-1] c35 N75-33367
- Multiple in-line docking capability for rotating space stations
[NASA-CASE-MFS-20855-1] c15 N77-10112
- SPACE SUITS**
- Astronaut restraint suit for high acceleration protection
[NASA-CASE-XAC-00405] c05 N70-41819
- Space suit with pressure-volume compensator system
[NASA-CASE-XLA-05332] c05 N71-11194
- Equipotential space suits utilizing mechanical aids to minimize astronaut energy at bending joints
[NASA-CASE-LAR-10007-1] c05 N71-11195
- One piece human garment for use as contamination proof garment
[NASA-CASE-MSC-12206-1] c05 N71-17599
- Space environmental work simulator with portions of space suit mounted to vacuum chamber wall
[NASA-CASE-XMF-07488] c11 N71-18773
- Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
[NASA-CASE-XMS-09571] c05 N71-19439
- Conditioning suit for normal function of astronaut cardiovascular system in gravity environment
[NASA-CASE-XLA-02898] c05 N71-20268
- Space suit using nonflexible material with low leakage and providing protection against thermal extremes, physical punctures, and radiation with high mobility articulation
[NASA-CASE-XAC-07043] c05 N71-23161
- Sealing evacuation port and evacuating vacuum container such as space jackets
[NASA-CASE-XMF-03290] c15 N71-23256
- Structure of fabric layers for micrometeoroid protection garment with capability for eliminating heat shorts for use in manufacturing space suits
[NASA-CASE-MSC-12109] c18 N71-26285
- Venting device for pressurized space suit helmet to eliminate vomit expelled by crewmen
[NASA-CASE-XMS-09652-1] c05 N71-26333
- Automatic control device for regulating inlet water temperature of liquid cooled spacesuit
[NASA-CASE-MSC-13917-1] c05 N72-15098
- Pressure regulator for space suit worn underwater to simulate space environment for testing and experimentation
[NASA-CASE-MFS-20332] c05 N72-20097
- Space suit with improved waist and torso movement
[NASA-CASE-ARC-10275-1] c05 N72-22092
- Underwater space suit pressure control regulator
[NASA-CASE-MFS-20332-2] c05 N73-25125
- Automatic temperature control for liquid cooled space suit
[NASA-CASE-ARC-10599-1] c05 N73-26071
- Intra- and extravehicular life support space suite for Apollo astronauts
[NASA-CASE-MSC-12609-1] c05 N73-32012
- Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
- Protective garment ventilation system
[NASA-CASE-XMS-04928] c54 N78-17679
- Emergency space-suit helmet
[NASA-CASE-MSC-10954-1] c54 N78-18761
- Spacesuit mobility joints
[NASA-CASE-ARC-11058-2] c54 N78-18763
- Spacesuit mobility joints
[NASA-CASE-ARC-11058-1] c54 N78-31735
- Spacesuit torso closure
[NASA-CASE-ARC-11100-1] c54 N78-31736
- Cooling system for removing metabolic heat from an hermetically sealed spacesuit
[NASA-CASE-ARC-11059-1] c54 N78-32721
- Emergency space-suit helmet
[NASA-CASE-XMS-04673-1] c54 N79-21766
- SPACE VEHICLE CHECKOUT PROGRAM**
- Hydraulic support apparatus for dynamic testing of space vehicles under near-free flight conditions
[NASA-CASE-XNP-03248] c11 N71-10604
- Digital computer system for automatic prelaunch checkout of spacecraft
[NASA-CASE-XKS-08012-2] c31 N71-15566
- Developing high pressure gas purification and filtration system for use in test operations of space vehicles
[NASA-CASE-MFS-12806] c14 N71-17588
- SPACEBORNE PHOTOGRAPHY**
- Camera arrangement --- for satellite scanning of earth or sky
[NASA-CASE-GSC-12032-2] c35 N76-19408
- SPACEBORNE TELESCOPES**
- Anastigmatic three-mirror telescope
[NASA-CASE-MFS-23675-1] c89 N79-10969
- SPACECRAFT**
- Metal strip mounting arrangement for solar cell arrays on spacecraft
[NASA-CASE-XGS-01475] c03 N71-11058
- Attitude sensor with scanning mirrors for detecting orientation of space vehicle with respect to planet
[NASA-CASE-XLA-00793] c21 N71-22880

SUBJECT INDEX

SPACECRAFT CONTROL

- Negation of magnetic fields produced by thin waferlike circuit elements in space vehicles [NASA-CASE-XGS-03390] c03 N71-23187
- Low mass ionizing device for use in electric thrust spacecraft engines [NASA-CASE-INP-01954] c28 N71-28850
- Vacuum chamber with scale model of rocket engine base area of space vehicle [NASA-CASE-MPS-20620] c11 N72-27262
- SPACECRAFT ANTENNAS**
 - Low loss parasitic probe antenna for prelaunch tests of spacecraft antennas [NASA-CASE-XKS-09348] c09 N71-13521
 - Millimeter wave antenna system for spacecraft use [NASA-CASE-GSC-10949-1] c07 N71-28965
 - Low weight, integrated thermoelectric generator/antenna combination for spacecraft [NASA-CASE-XER-09521] c09 N72-12136
 - Omnidirectional antenna array with circumferential slots for mounting on cylindrical space vehicle [NASA-CASE-LAR-10163-1] c09 N72-25247
 - Furlable antenna for spacecraft [NASA-CASE-NPO-11361] c07 N72-32169
 - Collapsible support for antenna reflector applied to installation of spacecraft antennas [NASA-CASE-NPO-11751] c07 N73-24176
 - Antenna deployment mechanism --- retractable spacecraft antennas [NASA-CASE-GSC-12331-1] c37 N78-32436
 - Coaxial phased array antenna --- spacecraft antenna [NASA-CASE-MSC-16800-1] c32 N79-19194
- SPACECRAFT CABIN ATMOSPHERES**
 - Thermal control wall panel with application to spacecraft cabins [NASA-CASE-XLA-01243] c33 N71-22792
 - Nonflammable coating compositions --- for use in high oxygen environments [NASA-CASE-MPS-20486-2] c27 N74-17283
 - Regenerable device for scrubbing breathable air of CO2 and moisture without special heat exchanger equipment [NASA-CASE-MSC-14771-1] c54 N77-32722
- SPACECRAFT COMMUNICATION**
 - Synchronizing apparatus for multi-access satellite time division multiplex system [NASA-CASE-XGS-05918] c07 N69-39974
 - Phase shift data transmission system with pseudo-noise synchronization code modulated with digital data into single channel for spacecraft communication [NASA-CASE-INP-00911] c08 N70-41961
 - Design and development of tracking receiver for tracking satellites and receiving radio signal transmissions under adverse noise conditions [NASA-CASE-XGS-08679] c10 N71-21473
 - Microwave omnidirectional antenna for use on spacecraft [NASA-CASE-XLA-03114] c09 N71-22888
 - VHF/UHF parasitic probe antenna for spacecraft communication [NASA-CASE-XKS-09340] c07 N71-24614
 - System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes [NASA-CASE-NPO-10214] c10 N71-26577
 - Turnstile slot antenna [NASA-CASE-GSC-11428-1] c32 N74-20864
 - Switchable beamwidth monopulse method and system [NASA-CASE-GSC-11924-1] c33 N76-27472
- SPACECRAFT COMPONENTS**
 - Rectangular electric conductors for conductor cables to withstand spacecraft vibration and controlled atmosphere [NASA-CASE-MPS-14741] c09 N70-20737
 - Vibration damping system operating in low vacuum environment for spacecraft mechanisms [NASA-CASE-XNS-01620] c23 N71-15673
 - Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components [NASA-CASE-INP-00920] c15 N71-15906
 - Omnidirectional anisotropic molecular trap, used with vacuum pump to simulate space environments for testing spacecraft components [NASA-CASE-XGS-00783] c30 N71-17788
- Spacecraft air lock system to provide ingress and egress of astronaut without subjecting vehicular environment to vacuum of space [NASA-CASE-XLA-02050] c31 N71-22968
- Development and characteristics of docking structure and apparatus for spacecraft docking [NASA-CASE-INP-05941] c31 N71-23912
- Design and development of release mechanism for spacecraft components, releasable despin weights, and extensible gravity booms [NASA-CASE-XGS-08718] c15 N71-24600
- Space environment simulator for testing spacecraft components under aerospace condition [NASA-CASE-NPO-10141] c11 N71-24964
- Design and development of spacecraft with outer shell structure heat shielding and built-in, removable excursion module [NASA-CASE-MSC-13047-1] c31 N71-25434
- Electronic detection system for peak acceleration limits in vibrational testing of spacecraft components [NASA-CASE-NPO-10556] c14 N71-27185
- Development of solid state polymer coating for obtaining thermal balance in spacecraft components [NASA-CASE-XLA-01745] c33 N71-28903
- Development of apparatus for mounting scientific experiments in spacecraft to permit utilization without maneuvering spacecraft [NASA-CASE-MSC-12372-1] c31 N72-25842
- Airlock [NASA-CASE-MPS-20922-1] c18 N74-22136
- Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft [NASA-CASE-MPS-21680-1] c18 N74-27397
- Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system [NASA-CASE-MSC-14245-1] c18 N75-27041
- SPACECRAFT CONFIGURATIONS**
 - Inflatable honeycomb panel element for lightweight structures usable in space stations and other construction [NASA-CASE-XLA-00204] c32 N70-36536
 - Lenticular vehicle with foldable aerodynamic control flaps and reaction jets for operation above and within earth's atmosphere [NASA-CASE-XGS-00260] c31 N70-37924
 - Stage separation system for spinning vehicles and payloads [NASA-CASE-XLA-02132] c31 N71-10582
 - Spacecraft configurations and aerodynamic characteristics of space shuttle systems with two reusable stages [NASA-CASE-MSC-12433] c31 N73-14854
 - Space vehicle [NASA-CASE-MPS-22734-1] c18 N75-19329
 - Variable dihedral shuttle orbiter [NASA-CASE-LAR-10706-2] c05 N77-31132
- SPACECRAFT CONSTRUCTION MATERIALS**
 - Pressurized cell micrometeoroid detector [NASA-CASE-XLA-00936] c14 N71-14996
 - Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants [NASA-CASE-INP-08881] c17 N71-28747
 - Method of making a composite sandwich lattice structure [NASA-CASE-LAR-11898-2] c24 N78-17149
- SPACECRAFT CONTROL**
 - Light sensitive digital aspect sensor for attitude control of earth satellites or space probes [NASA-CASE-XGS-00359] c14 N70-34158
 - Spacecraft attitude control system using solar and earth sensors, gyroscopes, and jet actuators [NASA-CASE-INP-00465] c21 N70-35395
 - Multiple parachute system for landing control of Apollo type spacecraft [NASA-CASE-XLA-00898] c02 N70-36804
 - Attitude control device for space vehicles [NASA-CASE-INP-00294] c21 N70-36938
 - Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners [NASA-CASE-XLA-00281] c21 N70-36943
 - Aerodynamic configuration of reentry vehicle heat shield to provide longitudinal and

SPACECRAFT DESIGN

SUBJECT INDEX

directional stability at hypersonic velocities
[NASA-CASE-XMS-04142] c31 N70-41631

Star sensor system for roll attitude control of spacecraft
[NASA-CASE-XNP-01307] c21 N70-41856

Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-XNP-03914] c21 N71-10771

Development of spacecraft experiment pointing and attitude control system
[NASA-CASE-XLA-05864] c21 N71-14132

Development of attitude control system for spacecraft orientation
[NASA-CASE-XGS-04393] c21 N71-14159

Drive mechanism for operating reactance attitude control system for aerospace bodies
[NASA-CASE-XNP-01598] c21 N71-15583

Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642

Large amplitude, linear inertial reference system of vibrating string type for spacecraft reference plane
[NASA-CASE-XAC-03107] c23 N71-16098

Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081

Ion beam deflector system for electronic thrust vector control for ion propulsion yaw, pitch, and roll forces
[NASA-CASE-LRW-10689-1] c28 N71-26173

Heated porous plug microthruster for spacecraft reaction jet controlled systems such as fuel flow regulation, propellant disassociation, and heat transfer augmentation
[NASA-CASE-GSC-10640-1] c28 N72-18766

Development of thrust control system for application to control of aircraft and spacecraft
[NASA-CASE-MSC-13397-1] c21 N72-25595

All sky pointing attitude control system
[NASA-CASE-ARC-10716-1] c35 N77-20399

SPACECRAFT DESIGN

Lunar landing flight research vehicle
[NASA-CASE-XPR-00929] c31 N70-34966

Design and configuration of manned space capsule
[NASA-CASE-XLA-01332] c31 N71-15664

Development of spacecraft radiator cover
[NASA-CASE-MSC-12049] c31 N71-16080

Method and apparatus for connecting two spacecraft with probe of one inserted in rocket engine nozzle of other spacecraft
[NASA-CASE-MPS-11133] c31 N71-16222

Development and characteristics of protective coatings for spacecraft
[NASA-CASE-XNP-02507] c31 N71-17679

Development and characteristics of self supporting space vehicle
[NASA-CASE-XLA-00117] c31 N71-17680

Multi-mission space vehicle module stage design
[NASA-CASE-XNP-01543] c31 N71-17730

Development and characteristics of docking structure and apparatus for spacecraft docking
[NASA-CASE-XNP-05941] c31 N71-23912

Design and development of spacecraft with outer shell structure heat shielding and built-in, removable excursion module
[NASA-CASE-MSC-13047-1] c31 N71-25438

Spacecraft design with single point aerodynamic and hydrodynamic stability for emergency transport of men from space station to splashdown
[NASA-CASE-MSC-13281] c31 N72-18859

Space vehicle
[NASA-CASE-MPS-22734-1] c18 N75-19329

Space vehicle system
[NASA-CASE-MSC-12561-1] c18 N76-17185

Method and apparatus for neutralizing potentials induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429

SPACECRAFT DOCKING

Probe and drogue assembly for mechanical linking of two space vehicles
[NASA-CASE-XMS-03613] c31 N71-16346

Development and characteristics of docking structure and apparatus for spacecraft docking

[NASA-CASE-XNP-05941] c31 N71-23912

Latch for fastening spacecraft docking rings
[NASA-CASE-MSC-15474-1] c15 N71-26162

High energy absorption docking system design for docking large spacecraft
[NASA-CASE-MPS-20863] c31 N73-26876

Latch mechanism
[NASA-CASE-MSC-12549-1] c37 N74-27903

Spacecraft docking and alignment system --- using television camera system
[NASA-CASE-MSC-12559-1] c18 N76-14186

Multiple in-line docking capability for rotating space stations
[NASA-CASE-MPS-20855-1] c15 N77-10112

Combined docking and grasping device
[NASA-CASE-MPS-23088-1] c37 N77-23483

SPACECRAFT ELECTRONIC EQUIPMENT

Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-XMS-05454-1] c07 N71-12391

Describing apparatus used in vacuum deposition of thin film inductive windings for spacecraft microcircuitry
[NASA-CASE-XNP-01667] c15 N71-17647

Nose cone mounted heat resistant antenna comprising plurality of adjacent layers of silica not introducing paths of high thermal conductivity through ablative shield
[NASA-CASE-XMS-04312] c07 N71-22984

SPACECRAFT ENVIRONMENTS

Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-XMS-09632-1] c05 N71-11203

Quick disconnect latch and handle combination for mounting articles on walls or supporting bases in spacecraft under zero gravity conditions
[NASA-CASE-MPS-11132] c15 N71-17649

Dual solid cryogenics for spacecraft refrigeration insuring low temperature cooling for extended periods
[NASA-CASE-GSC-10188-1] c23 N71-24725

Dual stage check valve for cryogenic supply systems used in space flight environmental control system
[NASA-CASE-MSC-13587-1] c15 N73-30459

Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MPS-21163-1] c54 N74-17853

Zero gravity separator
[NASA-CASE-LAR-10344-1] c35 N76-33470

Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297

SPACECRAFT GUIDANCE

Automatic ejection valve for attitude control and midcourse guidance of space vehicles
[NASA-CASE-XNP-00676] c15 N70-38996

Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-XNP-00684] c21 N71-21688

Design and characteristics of device for sensing solar radiation and providing spacecraft attitude control to maintain direction with respect to incident radiation
[NASA-CASE-XNP-05535] c14 N71-23040

Inertial gimbal alignment system for spacecraft guidance
[NASA-CASE-XNP-01669] c21 N71-23289

Hermetically sealed vibration damper design for use in gimbal assembly of spacecraft inertial guidance system
[NASA-CASE-MSC-10959] c15 N71-26243

SPACECRAFT INSTRUMENTS

Mechanical coordinate converter for use with spacecraft tracking antennas
[NASA-CASE-XNP-00614] c14 N70-36907

Air bearings for spacecraft gyros
[NASA-CASE-XNP-00339] c15 N70-39896

Unfolding boom assembly with knuckle joints for positioning equipment for spacecraft
[NASA-CASE-XGS-00938] c32 N70-41367

Pressurized cell micrometeoroid detector
[NASA-CASE-XLA-00936] c14 N71-14996

Guidance analyzer having suspended spacecraft simulating sphere for astronavigation

SUBJECT INDEX

SPACECRAFT STRUCTURES

- [NASA-CASE-XNP-09572] c14 N71-15621
Inertial component clamping assembly design for spacecraft guidance and control system mounting
[NASA-CASE-XMS-02184] c15 N71-20813
Optical projector system for establishing optimum arrangement of instrument displays in aircraft, spacecraft, other vehicles, and industrial instrument consoles
[NASA-CASE-XNP-03853] c23 N71-21882
Combined optical attitude and altitude indicating instrument for use in aircraft or spacecraft
[NASA-CASE-XLA-01907] c14 N71-23268
Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118
Method and apparatus for providing active attitude control for spacecraft by converting any attitude motion of vehicle into simple rotational motion
[NASA-CASE-HQN-10439] c21 N72-21624
Design and development of thermomechanical pump for transmitting warming fluid through fluid circuit to control temperature of spacecraft instrumentation
[NASA-CASE-NPO-11417] c15 N73-24513
Deployable pressurized cell structure for a micrometeoroid detector
[NASA-CASE-LAR-10295-1] c35 N74-21062
Distributed-switch diode radiometer
[NASA-CASE-GSC-12219-1] c43 N78-22436
SPACECRAFT LANDING
Non-reusable kinetic energy absorber for application in soft landing of space vehicles
[NASA-CASE-XLE-00810] c15 N70-34861
Plastic foam generator for space vehicle instrument payload package flotation in water landing
[NASA-CASE-XLA-00838] c03 N70-36778
Device for use in descending spacecraft as altitude sensor for actuating deceleration retrorockets
[NASA-CASE-XMS-03792] c14 N70-41812
SPACECRAFT LAUNCHING
Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694
Development and characteristics of squib actuated explosive disconnect for spacecraft release from launch vehicle
[NASA-CASE-NPO-11330] c33 N73-26958
SPACECRAFT MODELS
Space environment simulation system for measuring spacecraft electric field strength in plasma sheath
[NASA-CASE-XLE-02038] c09 N71-16086
SPACECRAFT MODULES
Radial module manned space station with artificial gravity environment
[NASA-CASE-XMS-01906] c31 N70-41373
Multi-mission space vehicle module stage design
[NASA-CASE-XNP-01543] c31 N71-17730
Design and development of spacecraft with outer shell structure heat shielding and built-in, removable excursion module
[NASA-CASE-HSC-13047-1] c31 N71-25434
Development and characteristics of thermal control system for maintaining constant temperature within spacecraft module with wide variations of component heat transfer
[NASA-CASE-GSC-11018-1] c31 N73-30829
SPACECRAFT POSITION INDICATORS
Device for determining relative angular position of spacecraft and radiating celestial body
[NASA-CASE-GSC-11444-1] c14 N73-28490
Spacecraft attitude sensing system design with narrow field of view sensor rotating about spacecraft x-y axis
[NASA-CASE-GSC-10890-1] c21 N73-30640
SPACECRAFT POWER SUPPLIES
Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320
Electrical power system for space flight vehicles operating over extended periods
[NASA-CASE-XNP-00517] c03 N70-34157
Lightweight, rugged, inexpensive satellite battery for producing electrical power from ionosphere using electrodes with different contact potentials
[NASA-CASE-XGS-01593] c03 N70-35408
Design and development of electric generator for space power system
[NASA-CASE-XLE-04250] c09 N71-20446
Monostable multivibrator for conserving power in spacecraft systems
[NASA-CASE-GSC-10082-1] c10 N72-20221
Rectangular solar cell stacked panels to generate electrical power aboard spacecraft
[NASA-CASE-NPO-11771] c03 N73-20040
Thermoelectric power system --- for spacecraft
[NASA-CASE-NPS-22002-1] c44 N76-16612
Solar energy power system
[NASA-CASE-NPS-21628-2] c44 N76-23675
SPACECRAFT PROPULSION
Colloidal particle generator for electrostatic engine for propelling space vehicles
[NASA-CASE-XLE-00817] c28 N70-33265
Spacecraft trajectory correction propulsion system
[NASA-CASE-XNP-01104] c28 N70-39931
Permanently magnetized ion engine casing construction for use in spacecraft propulsion systems
[NASA-CASE-XNP-06942] c28 N71-23293
Development of voice operated controller for controlling reaction jets of spacecraft
[NASA-CASE-XLA-04063] c31 N71-33160
Solid propellant motor
[NASA-CASE-NPO-11458A] c20 N78-32179
SPACECRAFT RADIATORS
Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380
SPACECRAFT RECOVERY
Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
[NASA-CASE-XNP-00641] c31 N70-36410
Method for deployment of flexible wing glider from space vehicle with minimum impact and loading
[NASA-CASE-XMS-00907] c02 N70-41630
SPACECRAFT REENTRY
Manned space capsule configuration for orbital flight and atmospheric reentry
[NASA-CASE-XLA-00149] c31 N70-37938
Event recorder with constant speed motor which rotates recording disk
[NASA-CASE-XLA-01832] c14 N71-21006
SPACECRAFT SHIELDING
Development and characteristics of protective coatings for spacecraft
[NASA-CASE-XNP-02507] c31 N71-17679
Double-wall isothermal cylinder containing heat transfer fluid thermal reservoir as spacecraft insulation cover
[NASA-CASE-NPS-20355] c33 N71-25353
Binder stabilized zinc oxide pigmented coating for spacecraft thermal control
[NASA-CASE-XNP-07770-2] c18 N71-26772
Thermal insulation protection means
[NASA-CASE-HSC-12737-1] c34 N77-22423
Electrically conductive thermal control coatings
[NASA-CASE-GSC-12207-1] c24 N79-14156
SPACECRAFT STABILITY
Satellite stabilization reaction wheel scanner
[NASA-CASE-XGS-02629] c14 N71-21082
Attitude sensor
[NASA-CASE-LAR-10586-1] c19 N74-15089
Annular momentum control device used for stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158
Active nutation controller
[NASA-CASE-GSC-12273-1] c18 N78-23141
Tetherline system for orbiting satellites
[NASA-CASE-NPS-23564-1] c15 N78-25119
SPACECRAFT STRUCTURES
Collapsible, space erectable loop antenna system for space vehicle
[NASA-CASE-XNP-00437] c07 N70-40202
Electro-optical system for maintaining two-axis alignment during milling operations on large tank-sections
[NASA-CASE-XNP-00908] c14 N70-40238
Development of spacecraft radiator cover
[NASA-CASE-HSC-12049] c31 N71-16080
Design and construction of satellite appendage tie-down cord

SPACECRAFT TELEVISION

SUBJECT INDEX

[NASA-CASE-XGS-02554] c31 N71-21064
Development and characteristics of thermal sensitive panel for controlling ratio of solar absorptivity to surface emissivity for space vehicle temperature control
[NASA-CASE-XLA-07728] c33 N71-22890
Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936
Delayed simultaneous appendage release mechanism for use on spacecraft equipped with despin mechanisms and releasable components
[NASA-CASE-GSC-10814-1] c03 N73-20039
Development of composite structures for spacecraft to serve as anti-meteoroid device
[NASA-CASE-LAR-10788-1] c31 N73-20880
Pressurized panel meteoroid detector
[NASA-CASE-XLA-08916-2] c14 N73-28487
Structural heat pipe --- for spacecraft wall thermal insulation system
[NASA-CASE-GSC-11619-1] c34 N75-12222
Auger attachment method for insulation --- of spacecraft
[NASA-CASE-HSC-12615-1] c37 N76-19437
Particulate and solar radiation stable coating for spacecraft
[NASA-CASE-LAR-10805-2] c34 N77-18382

SPACECRAFT TELEVISION
Electrically operated rotary shutter for television camera aboard spacecraft
[NASA-CASE-XNP-00637] c14 N70-40273
Conversion system for transforming slow scan rate of Apollo TV camera on moon to fast scan of commercial TV
[NASA-CASE-XMS-07168] c07 N71-11300
Optical conversion method --- for spacecraft television
[NASA-CASE-HSC-12618-1] c74 N78-17865

SPACECRAFT TRACKING
Spacecraft ranging system
[NASA-CASE-NPO-10066] c09 N71-18598
Elimination of tracking occultation problems occurring during continuous monitoring of interplanetary missions by using Earth orbiting communications satellite
[NASA-CASE-XAC-06029-1] c31 N71-24813
Tracking mount for laser telescope employed in tracking large rockets and space vehicles to effective information regarding azimuth and elevation
[NASA-CASE-MFS-14017] c14 N71-26627
Orbital and entry tracking accessory for globes --- to provide range requirements for reentry vehicles to any landing site
[NASA-CASE-LAR-10626-1] c19 N74-21015
Conical scan tracking system employing a large antenna
[NASA-CASE-NPO-14009-1] c32 N79-13214

SPACECREWS
Development and characteristics of inflatable structure to provide escape from orbit for spacecrews under emergency conditions
[NASA-CASE-XMS-06162] c31 N71-28851

SPALLATION
Method of producing I-123 --- by bombardment of cesium causing spallation
[NASA-CASE-LEW-11390-2] c25 N76-27383

SPARK GAPS
Spark gap type protective circuit for fast sensing and removal of overvoltage conditions
[NASA-CASE-XAC-08981] c09 N69-39897
Mechanism for measuring nanosecond time differences between luminous events using streak camera
[NASA-CASE-XLA-01987] c23 N71-23976

SPARK IGNITION
High temperature spark plug for igniting liquid rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925
Plasma igniter for internal combustion engine
[NASA-CASE-NPO-13828-1] c37 N79-11405

SPARK PLUGS
High temperature spark plug for igniting liquid rocket propellants
[NASA-CASE-XLE-00660] c28 N70-39925

SPATIAL DISTRIBUTION
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles

[NASA-CASE-NPO-10185] c10 N71-26339

SPATIAL FILTERING
Photographic film restoration system using Fourier transformation lenses and spatial filter
[NASA-CASE-HSC-12448-1] c14 N72-20394
Spatial filter for Q-switched lasers
[NASA-CASE-LEW-12164-1] c36 N77-32478

SPECTRAL REFLECTANCE
Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040

SPECTRAL SIGNATURES
Multispectral imaging and analysis system --- using charge coupled devices and linear arrays
[NASA-CASE-NPO-13691-1] c43 N79-17288

SPECTROMETERS
Spectrometer using photoelectric effect to obtain spectral data
[NASA-CASE-XNP-04161] c14 N71-15599
Variable frequency nuclear magnetic resonance spectrometer providing drive signals over wide frequency range and minimizing noise effects
[NASA-CASE-XNP-09830] c14 N71-26266
Maksutov spectrograph for low light level research
[NASA-CASE-XLA-10402] c14 N71-29041
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer
[NASA-CASE-XNP-05231] c14 N73-28491
Design of gamma ray spectrometer for measurement of intense radiation using Compton scattering effect
[NASA-CASE-MFS-21441-1] c14 N73-30392
Mossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091
Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040
Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613
Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627
Resonant waveguide stark cell --- using microwave spectrometers
[NASA-CASE-LAR-11352-1] c33 N75-26245
Ion and electron detector for use in an ICR spectrometer
[NASA-CASE-NPO-13479-1] c35 N77-10492
Visible and infrared polarization ratio spectrophotometer
[NASA-CASE-LAR-12285-1] c35 N78-32398
Stark cell spectrophone with polarization modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392
Cooled echeile grating spectrometer
[NASA-CASE-NPO-14372-1] c35 N79-17196

SPECTROPHOTOMETERS
Spectrophotofluorometer with 3-dimensional display to identify fluorescence spectra of carcinogenic and noncarcinogenic hydrocarbons
[NASA-CASE-XGS-01231] c14 N70-14676
Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628
High resolution Fourier interferometer-spectrophotopolarimeter
[NASA-CASE-NPO-13604-1] c35 N76-31490
Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867

SPECTRORADIOMETERS
Development and characteristics of spectroradiometer with wedge filters to eliminate adverse effect of pinholes in filters
[NASA-CASE-HQN-10683] c14 N71-34389

SPECTROSCOPIC ANALYSIS
Cylindrical reflector for resolving wide angle light beam from telescope into narrow beam for spectroscopic analysis
[NASA-CASE-XGS-08269] c23 N71-26206
High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

SPECTRUM ANALYSIS
Spectrometer using photoelectric effect to obtain spectral data
[NASA-CASE-XNP-04161] c14 N71-15599
Emission spectroscopy method for contamination monitoring of inert gas metal arc welding
[NASA-CASE-XNP-02039] c15 N71-15871

- Method and apparatus for high resolution power spectrum analysis
[NASA-CASE-NPO-10748] c08 N72-20177
- Interferometer
[NASA-CASE-NPO-14502-1] c35 N79-19317
- SPECULAR REFLECTION**
Real time reflectometer --- measurement of specular reflectance
[NASA-CASE-NPS-23118-1] c35 N77-31465
- SPEECH RECOGNITION**
Speech analyzer
[NASA-CASE-GSC-11898-1] c32 N77-30309
- SPEED CONTROL**
System for maintaining motor at predetermined speed using digital pulses
[NASA-CASE-XMF-06892] c09 N71-24805
Optimal control system for automatic speed regulation of electric driven motor vehicle
[NASA-CASE-NPO-11210] c11 N72-20244
Two speed drive system --- mechanical device for changing speed on rotating vehicle wheel
[NASA-CASE-NPS-20645-1] c37 N74-23070
Low speed phaselock speed control system --- for brushless dc motor
[NASA-CASE-GSC-11127-1] c09 N75-24758
A speed control device for a heavy duty shaft
[NASA-CASE-NPO-14170] c37 N78-17391
- SPEED REGULATORS**
Feedback control for direct current motor to achieve constant speed under varying loads
[NASA-CASE-NPS-14610] c09 N71-28886
- SPHERES**
Guidance analyzer having suspended spacecraft simulating sphere for astronavigation
[NASA-CASE-XNP-09572] c14 N71-15621
Plastic sphere for radar tracking and calibration
[NASA-CASE-XLA-11154] c07 N72-21117
- SPHERICAL SHELLS**
Hollow spherical electrode for shielding dielectric junction between high voltage conductor and insulator
[NASA-CASE-XLE-03778] c09 N69-21542
Development of mechanical device for measuring distance of point within sphere from surface of sphere
[NASA-CASE-XLA-06683] c14 N72-28436
- SPHERICAL TANKS**
Gauge for measuring quantity of liquid in spherical tank in reduced gravity
[NASA-CASE-XMS-06236] c14 N71-21007
- SPHERICAL WAVES**
Electrical device for developing converging spherical shock waves
[NASA-CASE-NPS-20890] c14 N72-22439
- SPHYGMOGRAPHY**
A logic-controlled occlusive cuff system
[NASA-CASE-MSC-14836-1] c52 N76-27839
- SPIKE NOZZLES**
Constructing fluid spike nozzle to eliminate heat transfer and high temperature problems inherent in physical spikes
[NASA-CASE-XGS-01143] c31 N71-15647
- SPIN DYNAMICS**
Nutation damper for use on spinning body
[NASA-CASE-GSC-11205-1] c15 N73-25513
Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
[NASA-CASE-NPO-13993-1] c72 N79-13826
- SPIN REDUCTION**
Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
[NASA-CASE-XGS-02401] c14 N69-27485
Bolt-latch mechanism for releasing despin weights from space vehicle
[NASA-CASE-XLA-00679] c15 N70-38601
Stretch Yo-Yo mechanism for reducing initial spin rate of space vehicle
[NASA-CASE-XGS-00619] c30 N70-40016
Stage separation system for spinning vehicles and payloads
[NASA-CASE-XLA-02132] c31 N71-10582
Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
[NASA-CASE-XMF-00442] c31 N71-10747
- SPIN STABILIZATION**
Dynamic precession damping of spin-stabilized vehicles by using rate gyroscope and angular accelerometer
[NASA-CASE-XLA-01989] c21 N70-34295
Attitude orientation control of spin stabilized final stage space vehicles, using horizon scanners
[NASA-CASE-XLA-00281] c21 N70-36943
Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-XGS-03431] c21 N71-15642
Spin phase synchronization of cartwheel satellite in polar orbit
[NASA-CASE-XGS-05579] c31 N71-15676
High velocity guidance and spin stabilization gyro controlled jet reaction system for launch vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
Passive dual spin misalignment compensators --- gyro stabilized device
[NASA-CASE-GSC-11479-1] c35 N74-28097
Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421
Active nutation controller
[NASA-CASE-GSC-12273-1] c18 N78-23141
- SPINDLES**
Variable contour securing system
[NASA-CASE-MSC-16270-1] c37 N78-27423
- SPIRAL WRAPPING**
Adjustable spiral wire winding device
[NASA-CASE-XMS-02383] c15 N71-15918
- SPIRALS (CONCENTRATORS)**
Spiral groove seal --- for hydraulic rotating shaft
[NASA-CASE-LEW-10326-3] c37 N74-10474
- SPIROMETERS**
Compact bellows spirometer for high speed and high altitude space travel
[NASA-CASE-XAR-01547] c05 N69-21473
- SPLINES**
Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536
- SPLINTS**
Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMF-06589] c05 N71-23159
- SPORES**
Lyophilized spore dispenser
[NASA-CASE-LAR-10544-1] c37 N74-13178
- SPOT WELDS**
Controlled arc spot welding method
[NASA-CASE-XMF-00392] c15 N70-34814
Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-NPS-13046] c07 N71-19433
Electric resistance spot welding and brazing for producing metal bonds with superior mechanical and structural characteristics
[NASA-CASE-LAR-11072-1] c15 N73-20535
- SPRAY NOZZLES**
Penetrator nozzle
[NASA-CASE-KSC-11064-1] c34 N78-22328
Rocket injector head
[NASA-CASE-XMF-04592-1] c20 N79-21125
- SPRAYED COATINGS**
Plasma spraying gun for forming diffusion bonded metal or ceramic coatings on substrates
[NASA-CASE-XLE-01604-2] c15 N71-15610
Production and application of sprayable fiber reinforced ablation material
[NASA-CASE-XLA-04251] c18 N71-26100
Metal plating process employing spraying of metallic power/peening particle mixture
[NASA-CASE-GSC-11163-1] c15 N73-32360
Sprayable low density ablator and application process
[NASA-CASE-NPS-23506-1] c24 N78-24290
Spray coating apparatus having a rotatable workpiece holder
[NASA-CASE-ARC-11110-1] c37 N78-32434
- SPRAYERS**
External device for liquid spray cooling of gas turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372
Adhesive spray process for attaching biomedical skin electrodes

SPRAYING

SUBJECT INDEX

[NASA-CASE-IPR-07658-1] c05 N71-26293
 Apparatus for liquid spray cooling of turbine blades
 [NASA-CASE-XLB-00027] c33 N71-29152
 Closed loop spray cooling apparatus --- for particle accelerator targets
 [NASA-CASE-LEW-11981-1] c31 N78-17237
 Spray coating apparatus having a rotatable workpiece holder
 [NASA-CASE-ARC-11110-1] c37 N78-32434

SPRAYING
 Aircraft wheel spray drag alleviator for dual tandem landing gear
 [NASA-CASE-XLA-01583] c02 N70-36825
 Closed loop spray cooling apparatus
 [NASA-CASE-LEW-11981-2] c34 N79-20336

SPREADING
 Tool attachment for spreading or moving away loose elements from terminal posts during winding of filamentary elements
 [NASA-CASE-XMF-02107] c15 N71-10809

SPRINGS (ELASTIC)
 Belleville spring assembly with elastic guides having low hysteresis
 [NASA-CASE-XNP-09452] c15 N69-27504
 Multiple Belleville spring assembly with even load distribution
 [NASA-CASE-XNP-00840] c15 N70-38225
 Switching mechanism with energy stored in coil spring
 [NASA-CASE-XGS-00473] c03 N70-38713
 Load cell protection device using spring-loaded breakaway mechanism
 [NASA-CASE-XMS-06782] c32 N71-15974
 Vibration isolation system, using coaxial helical compression springs
 [NASA-CASE-NPO-11012] c15 N72-11391
 Spring-operated accelerator and constant force spring mechanism therefor
 [NASA-CASE-ARC-10898-1] c35 N77-18417

SPUTTERING
 Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
 [NASA-CASE-ERC-10120] c26 N69-33482
 Development of procedure for producing thin transparent films of zinc oxide on transparent refractory substrate
 [NASA-CASE-FRC-10019] c15 N73-12487
 Technique and equipment for sputtering using apertured electrode and pulsed substrate bias
 [NASA-CASE-LEW-10920-1] c17 N73-24569
 Sputtering holes with ion beamlets
 [NASA-CASE-LEW-11646-1] c20 N74-31269
 Multitarget sequential sputtering apparatus
 [NASA-CASE-NPO-13345-1] c37 N75-19684
 A heat exchanger and method of making --- rocket lining
 [NASA-CASE-LEW-12441-2] c34 N79-21313

SQUARE WAVES
 High speed phase detector design indicating phase relationship between two square wave input signals
 [NASA-CASE-XNP-01306-2] c09 N71-24596

SQUARES (MATHEMATICS)
 Apparatus for computing square roots
 [NASA-CASE-IGS-04768] c08 N71-19437

SQUIBS
 Contamination free separation nut eliminating combustion products from ambient surroundings generated by squib firing
 [NASA-CASE-IGS-01971] c15 N71-15922

STABILITY AUGMENTATION
 A velocity vector control system augmented with direct lift control --- stability augmentation using manual control
 [NASA-CASE-LAR-12268-1] c08 N79-20136

STABILITY TESTS
 Method and apparatus for checking the stability of a setup for making reflection type holograms
 [NASA-CASE-NFS-21455-1] c35 N74-15146

STABILIZATION
 Electro-optical stabilization of calibrated light source
 [NASA-CASE-HSC-12293-1] c14 N72-27411
 System for controlling torque buildup in suspension of gondola connected to balloon by parachute shroud lines
 [NASA-CASE-GSC-11077-1] c02 N73-13008

Development of aerodynamic control system to control flutter over large range of oscillatory frequencies using stability augmentation techniques
 [NASA-CASE-LAR-10682-1] c02 N73-26004
 Radiation hardening of MOS devices by boron --- for stabilizing gate threshold potential
 [NASA-CASE-GSC-11425-2] c76 N75-25730
 Arc control in compact arc lamps
 [NASA-CASE-NPO-10870-1] c33 N77-22386
 A pitch attitude stabilization system utilizing engine pressure ratio feedback signals
 [NASA-CASE-LAR-12562-1] c08 N79-20135

STABILIZED PLATFORMS
 Hydraulic drive mechanism for leveling isolation platforms
 [NASA-CASE-XMS-03252] c15 N71-10658
 Failure detection and control means for improved drift performance of a gimballed platform system
 [NASA-CASE-NFS-23551-1] c04 N76-26175
 Rotary leveling base platform
 [NASA-CASE-ARC-10981-1] c37 N78-27425

STABILIZERS
 Design and development of satellite despin device
 [NASA-CASE-XNP-08523] c31 N71-20396

STABILIZERS (AGENTS)
 Solid propellant stabilizer containing nitroguanidine
 [NASA-CASE-NPO-12000] c27 N72-25699

STABILIZERS (FLUID DYNAMICS)
 Assembly for opening flight capsule stabilizing and decelerating flaps with reference to capsule recovery
 [NASA-CASE-XNP-00641] c31 N70-36410
 Mechanical stabilization system for VTOL aircraft
 [NASA-CASE-XLA-06339] c02 N71-13422
 Attitude stabilizer for nonguided missile or vehicle with respect to trajectory
 [NASA-CASE-ARC-10134] c30 N72-17873
 Inflatable stabilizing system for use on life raft to reduce rocking and preclude capsizing
 [NASA-CASE-HSC-12393-1] c02 N73-26006
 Externally supported internally stabilized flexible duct joint
 [NASA-CASE-NFS-19194-1] c37 N76-14460

STABLE OSCILLATIONS
 Automatic measuring and recording of gain and zero drift characteristics of electronic amplifier
 [NASA-CASE-XMS-05562-1] c09 N69-39986

STACKS
 Remote fire stack igniter --- with solenoid-controlled valve
 [NASA-CASE-NFS-21675-1] c25 N74-33378

STAGE SEPARATION
 Stage separation using remote control release of joint with explosive insert
 [NASA-CASE-XLA-02854] c15 N69-27490
 Piezoelectric means for missile stage separation indication and stage initiation
 [NASA-CASE-XLA-00791] c03 N70-39930
 Space vehicle stage coupling and quick release separation mechanism
 [NASA-CASE-XLA-01441] c15 N70-41679
 Stage separation system for spinning vehicles and payloads
 [NASA-CASE-XLA-02132] c31 N71-10582
 Payload/spent rocket engine case separation system
 [NASA-CASE-XLA-05369] c31 N71-15687
 Separation mechanism for use between stages of multistage rocket vehicles
 [NASA-CASE-XLA-00188] c15 N71-22874
 Development of remotely controlled shaped charge for lateral displacement of rocket stages after separation
 [NASA-CASE-XLA-04804] c31 N71-23008
 Electrical circuit selection device for simulating stage separation of flight vehicle
 [NASA-CASE-XKS-04631] c10 N71-23663
 Frangible connecting link suitable for rocket stage separation
 [NASA-CASE-HSC-11849-1] c15 N72-22488

STAGNATION PRESSURE
 Flow meter for measuring stagnation pressure in boundary layer around high speed flight vehicle
 [NASA-CASE-IPR-02007] c12 N71-24692
 Stagnation pressure probe --- for measuring pressure of supersonic gas streams
 [NASA-CASE-LAR-11139-1] c35 N74-32878

SUBJECT INDEX

STERILIZATION

STAGNATION TEMPERATURE

Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156

STAINING

Automated single-slide staining device
[NASA-CASE-LAR-11649-1] c51 N77-27677

STAINLESS STEELS

Joining aluminum to stainless steel by bonding aluminum coatings onto titanium coated stainless steel and brazing aluminum to aluminum/titanium coated steel
[NASA-CASE-NFS-07369] c15 N71-20443
Ultrasonic scanning system for in-place inspection of brazed tube joints
[NASA-CASE-NFS-20767-1] c38 N74-15130
Method of forming a wick for a heat pipe
[NASA-CASE-NPO-13391-1] c34 N76-27515
Method of making reinforced composite structure
[NASA-CASE-LBW-12619-1] c24 N77-19171
Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-NFS-23518-2] c44 N77-31611

STANDARDS

Microwave integrated circuit for Josephson voltage standards
[NASA-CASE-NFS-23845-1] c33 N78-32347

STAR TRACKERS

Star sensor system for roll attitude control of spacecraft
[NASA-CASE-INP-01307] c21 N70-41856
Sun tracker with rotatable plane-parallel plate and two photocells
[NASA-CASE-IGS-01159] c21 N71-10678
Photomultiplier detector of Canopus for spacecraft attitude control
[NASA-CASE-INP-03914] c21 N71-10771
Attitude detection system using stellar references for three-axis control and spin stabilized spacecraft
[NASA-CASE-IGS-03431] c21 N71-15642
Relay controlled voltage switching unit for scanning circuitry of star tracker
[NASA-CASE-NPO-11253] c09 N72-17157
Method for producing reticles for use in outer space
[NASA-CASE-GSC-11188-2] c21 N73-19630
Production method of star tracking reticles for transmitting in visible and near ultraviolet regions
[NASA-CASE-GSC-11188-1] c14 N73-32320
Formation of star tracking reticles
[NASA-CASE-GSC-11188-3] c74 N74-20008
Star scanner --- with a reticle with a pair of slits having differing separation
[NASA-CASE-GSC-11569-1] c89 N74-30886

STARK EFFECT

Resonant waveguide stark cell --- using microwave spectrometers
[NASA-CASE-IAR-11352-1] c33 N75-26245
Stark-effect modulation of CO2 laser with Nb2O5
[NASA-CASE-NPO-11945-1] c36 N76-18427
Stark cell spectrophone with polarization modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392

STARTERS

Starting circuit design for initiating and maintaining arcs in vapor lamps
[NASA-CASE-INP-01058] c09 N71-12540
Motor run-up system --- power lines
[NASA-CASE-NPO-13374-1] c33 N75-19524

STARTING

A portable device particularly suited for use in starting air-start units for aircraft
[NASA-CASE-PBC-10113-1] c09 N78-19166

STATIC FRICTION

Kinetic and static friction force measurement between magnetic tape and magnetic head surfaces
[NASA-CASE-INP-08680] c14 N71-22995
Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489

STATIC INVERTERS

Describing static inverter with single or multiple phase output
[NASA-CASE-INP-00663] c08 N71-18752
Development and characteristics of oscillating static inverter

[NASA-CASE-IGS-05289] c09 N71-19470

STATIC LOADS

Measuring shear-creep compliance of solid and liquid materials used in spacecraft components
[NASA-CASE-XLE-01481] c14 N71-10781
Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap
[NASA-CASE-XMS-04545] c15 N71-22878

STATIC PRESSURE

Pressure probe for sensing ambient static air pressures
[NASA-CASE-XLA-00481] c14 N70-36824
Ambient atmospheric pressure sensing device for determining altitude of flight vehicles
[NASA-CASE-XLA-00128] c15 N70-37925
Static pressure probe
[NASA-CASE-LAR-11552-1] c35 N76-14429
Static pressure orifice system testing and apparatus
[NASA-CASE-LAR-12269-1] c09 N78-33123

STATIONKEEPING

Method of stationkeeping for lenticular gravity gradient satellites
[NASA-CASE-XLA-03132] c31 N71-22969

STATISTICAL CORRELATION

Optical sensing of supersonic flows by correlating deflections in laser beams through flow
[NASA-CASE-NFS-20642] c14 N72-21407

STATOR BLADES

Stator rotor tools
[NASA-CASE-MSC-16000-1] c37 N78-24544

STATORS

Nickel base alloy --- for gas turbine engine stator vanes
[NASA-CASE-LBW-12270-1] c26 N77-32280
Liquid metal slip ring
[NASA-CASE-LBW-12277-2] c33 N78-25323

STEADY STATE

Steady state thermal radiometers
[NASA-CASE-NFS-21108-1] c34 N74-27861

STEAM TURBINES

Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104

STEELS

Zinc dust formulation for abrasion resistant steel coatings
[NASA-CASE-GSC-10361-1] c18 N72-23518

STEEPLE ANTENNAS

Apparatus for generating microwave signals at progressively related phase angles for driving antenna array
[NASA-CASE-EBC-10046] c10 N71-18722
Satellite radio communication system with remote steerable antenna
[NASA-CASE-INP-02389] c07 N71-28900
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860
Phased array antenna control
[NASA-CASE-MSC-14939-1] c32 N79-11264

STEERING

Steerable solid propellant rocket motor adapted to effect payload orientation as multistage rocket stage or reduce velocity as retrorocket
[NASA-CASE-INP-00234] c28 N70-38645

STELLAR LUMINOSITY

Development of star intensity measuring system which minimizes effects of outside interference
[NASA-CASE-INP-06510] c14 N71-23797

STELLAR SPECTRA

Development of star intensity measuring system which minimizes effects of outside interference
[NASA-CASE-INP-06510] c14 N71-23797

STEREOPHOTOGRAPHY

Stereo photomicrography system with stereo microscope for viewing specimen at various magnifications
[NASA-CASE-LAR-10176-1] c14 N72-20380

STEREOSCOPIC VISION

Stereoscopic television system, including projecting pair of binocular images
[NASA-CASE-ABC-10160-1] c23 N72-27728

STERILIZATION

Using ethylene oxide in preparation of sterilized solid rocket propellants and encapsulating materials
[NASA-CASE-INP-01749] c27 N70-41897

STERILIZATION EFFECTS

SUBJECT INDEX

Ethylene oxide sterilization and encapsulating process for sterile preservation of instruments and solid propellants
[NASA-CASE-XNP-09763] c14 N71-20461

Environmentally controlled suit for working in sterile chamber
[NASA-CASE-LAR-10076-1] c05 N73-20137

Protein sterilization of firefly luciferase without denaturation
[NASA-CASE-GSC-10225-1] c06 N73-27086

Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761

Portable heatable container
[NASA-CASE-NPO-14237-1] c37 N78-24554

STERILIZATION EFFECTS

Reliability of electrical connectors after heat sterilization
[NASA-CASE-NPO-10694] c09 N72-20200

STIMULATED EMISSION

Repetitively pulsed wavelength selective carbon dioxide laser
[NASA-CASE-ERC-10178] c16 N71-24832

STIRLING CYCLE

Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590

Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431

A phase-angle controller for stirling engines
[NASA-CASE-NPO-14388-1] c37 N79-17217

An improved solar energy receiver for a stirling engine
[NASA-CASE-NPO-14619-1] c44 N79-20513

STIRRING

Design of mechanical device for stirring several test tubes simultaneously
[NASA-CASE-IAC-06956] c15 N71-21177

STOMACH

Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ABC-11118-2] c52 N79-14755

STORAGE

Design and development of fluid sample collector
[NASA-CASE-XMS-06767-1] c14 N71-20435

A sodium storage and injection system
[NASA-CASE-NPO-10384-1] c25 N78-22187

STORAGE BATTERIES

Leak resistant bonded elastomeric seal for secondary electrochemical cells
[NASA-CASE-XGS-02631] c03 N71-23006

Automatically charging battery of electric storage cells
[NASA-CASE-XNP-04758] c03 N71-24605

Elimination of two step voltage discharge property of silver zinc batteries by using divalent silver oxide capacity of cell to charge anodes to monovalent silver state
[NASA-CASE-XGS-01674] c03 N71-29129

Electric storage battery with high impact resistance
[NASA-CASE-NPO-11021] c03 N72-20032

Hydrogen-bromine secondary battery
[NASA-CASE-NPO-13237-1] c44 N76-18641

Rechargeable battery which combats shape change of the zinc anode
[NASA-CASE-HQN-10862-1] c44 N76-29699

Electrically rechargeable REDOX flow cell
[NASA-CASE-LEW-12220-1] c44 N77-14581

Formulated plastic separators for soluble electrode cells --- rubber-ion transport membranes
[NASA-CASE-LEW-12358-1] c44 N79-17313

STORAGE STABILITY

Storage stable, thermally activated foaming compositions for erecting and rigidizing mechanisms of thin sheet solar collectors
[NASA-CASE-LAR-10373-1] c18 N71-26155

Gas diffusion liquid storage bag and method of use for storing blood
[NASA-CASE-NPO-13930-1] c52 N79-14749

STORAGE TANKS

Expulsion bladder equipped storage tank structure
[NASA-CASE-XNP-00612] c11 N70-38182

Development of apparatus and method for testing leakage of large tanks
[NASA-CASE-XNP-02392] c32 N71-24285

Apparatus for aligning shadow shields and cryogenic storage tanks in outer space with the sun
[NASA-CASE-KSC-10622-1] c31 N72-21893

Cryogenic container compound suspension strap
[NASA-CASE-ARC-11157-1] c31 N79-18087

STRAIN GAGE ACCELEROMETERS

Accelerometer with PM output signals indicative of mechanical strain on it
[NASA-CASE-XLA-00492] c14 N70-34799

Strain gage accelerometer for angular acceleration measurement
[NASA-CASE-XMS-05936] c14 N70-41682

STRAIN GAGE BALANCES

Self-balancing strain gage transducer with bridge circuit
[NASA-CASE-MPS-12827] c14 N71-17656

STRAIN GAGES

Semiconductor p-n junction on needle apex to provide stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422

Apparatus for forming wire grids for electric strain gages
[NASA-CASE-XLE-00023] c15 N70-33330

Force measuring instrument for structural members, particularly fastening bolts or studs
[NASA-CASE-XNF-00456] c14 N70-34705

Strain gage for detecting and measuring mechanical strain in thermally strained specimens
[NASA-CASE-FRC-10053] c14 N70-35587

Difference indicating circuit used in conjunction with device measuring gravitational fields
[NASA-CASE-XNP-08274] c10 N71-13537

Water cooled gage for strain measurements in high temperature environments
[NASA-CASE-XNP-09205] c14 N71-17657

Development of apparatus for measuring successive increments of strain on elastomers
[NASA-CASE-XNF-04680] c15 N71-19489

Strain gage measurement of elongation due to thermally and mechanically induced stresses
[NASA-CASE-XGS-04478] c14 N71-24233

Method for temperature compensating semiconductor gages by exposure to high energy radiation
[NASA-CASE-XLA-04555-1] c14 N71-25892

Pulsed excitation voltage circuit for strain gage bridge transducers
[NASA-CASE-FRC-10036] c09 N72-22200

Method for making semiconductor p-n junction stress and strain sensor
[NASA-CASE-XLA-04980-2] c14 N72-28438

Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-MPS-21556-1] c35 N74-26945

Strain gauge ambiguity sensor for segmented mirror active optical system
[NASA-CASE-MPS-20506-1] c35 N75-12273

Subminiature insertable force transducer --- including a strain gage to measure forces in muscles
[NASA-CASE-NPO-13423-1] c33 N75-31329

Self-supporting strain transducer
[NASA-CASE-LAR-11263-1] c35 N75-33369

Strain gage mounting assembly
[NASA-CASE-NPO-13170-1] c35 N76-14430

High temperature strain gage calibration fixture
[NASA-CASE-LAR-11500-1] c35 N76-24523

Miniature biaxial strain transducer
[NASA-CASE-LAR-11648-1] c35 N77-14407

CW ultrasonic bolt tensioning monitor
[NASA-CASE-LAR-12016-1] c39 N78-15512

Attaching of strain gages to substrates
[NASA-CASE-FRC-10093-1] c35 N78-18393

Photomechanical transducer --- using thin strips of photoabsorptive metal or polymeric film with strain gages
[NASA-CASE-NPO-14363-1] c76 N79-14908

STRAIN RATE

Process for analysis of strain field of structures subjected to large deformations involving low modulus substrate with thin coating
[NASA-CASE-LAR-10765-1] c32 N73-20740

STRAPDOWN INERTIAL GUIDANCE

All sky pointing attitude control system
[NASA-CASE-ARC-10716-1] c35 N77-20399

STRAPS

Meter for use in detecting tension in straps having predetermined elastic characteristics
[NASA-CASE-MPS-22189-1] c35 N75-19615

SUBJECT INDEX

STRUTS

Drop foot corrective device
[NASA-CASE-LAR-12259-1] c54 N78-18762

Cryogenic container compound suspension strap
[NASA-CASE-ARC-11157-1] c31 N79-18087

STREAMS
Apparatus for measuring a sorbate dispersed in a fluid stream
[NASA-CASE-ARC-10896-1] c35 N78-19465

STRESS ANALYSIS
Nondestructive stress testing of solder joints on printed circuit boards by holographic techniques
[NASA-CASE-MFS-20687] c16 N72-11415

Development of system for measuring damping characteristics of structure or system subjected to random forces or influences
[NASA-CASE-ARC-10154-1] c14 N72-22440

Process for analysis of strain field of structures subjected to large deformations involving low modulus substrate with thin coating
[NASA-CASE-LAR-10765-1] c32 N73-20740

High temperature strain gage calibration fixture
[NASA-CASE-LAR-11500-1] c35 N76-24523

STRESS CONCENTRATION
Self-supporting strain transducer
[NASA-CASE-LAR-11263-1] c35 N75-33369

STRESS CORROSION
Method to prevent stress corrosion cracking in titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393

Method and apparatus for inducing compressive stresses in pressure vessel to prevent stress corrosion
[NASA-CASE-XLA-07390] c15 N71-18616

STRESS MEASUREMENT
Semiconductor p-n junction on needle apex to provide stress and strain sensor
[NASA-CASE-XLA-04980] c09 N69-27422

Force measuring instrument for structural members, particularly fastening bolts or studs
[NASA-CASE-XMP-00456] c14 N70-34705

Self-balancing strain gage transducer with bridge circuit
[NASA-CASE-MFS-12827] c14 N71-17656

Servocontrol system for measuring local stresses at geometric discontinuity in stressed material
[NASA-CASE-XLA-08530] c32 N71-25360

Amplifying ribbon extensometer
[NASA-CASE-LAR-11825-1] c35 N77-22449

CW ultrasonic bolt tensioning monitor
[NASA-CASE-LAR-12016-1] c39 N78-15512

STRESS RELAXATION
Method for alleviating thermal stress damage in laminates
[NASA-CASE-LEW-12493-1] c24 N78-22163

STRESS RELIEVING
Nut and bolt fastener permitting all-directional movement of skin sections with respect to supporting structure
[NASA-CASE-XLA-01807] c15 N71-10799

STRESSES
Tape recorder designed for low power consumption and resistance to operational failure under high stress conditions
[NASA-CASE-XGS-08259] c14 N71-23698

Strain gage measurement of elongation due to thermally and mechanically induced stresses
[NASA-CASE-XGS-04478] c14 N71-24233

Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264

STRETCHERS
Development and characteristics of rescue litter with inflatable flotation device for water rescue application
[NASA-CASE-XMS-04170] c05 N71-22748

Stretcher with rigid head and neck support with capability of supporting immobilized person in vertical position for removal from vehicle hatch to exterior also useful as splint stretcher
[NASA-CASE-XMP-06589] c05 N71-23159

STRETCHING
Device for securing together structural members with axially stretched bolt and nut
[NASA-CASE-GSC-11149-1] c15 N73-30457

STRINGS
Cord restraint system for pressure suit joints
[NASA-CASE-XMS-09635] c05 N71-24623

STRIP
A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N77-28585

STRUCTURAL ANALYSIS
Window defect planar mapping technique
[NASA-CASE-MSC-19442-1] c74 N77-10899

STRUCTURAL DESIGN
Design of inflatable life raft for aircrafts and boats
[NASA-CASE-XMS-00863] c05 N70-34857

Structural design of high pressure regulator valve
[NASA-CASE-XMP-00710] c15 N71-10778

Graphic illustration of lifting body design
[NASA-CASE-PRC-10063] c01 N71-12217

Design of ring wing vehicle of high drag-to-weight ratio to withstand reentry stress into low density atmosphere
[NASA-CASE-XLA-04901] c31 N71-24315

Opto-mechanical subsystem with temperature compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366

Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933

STRUCTURAL FAILURE
Method and apparatus for nondestructive testing of pressure vessels
[NASA-CASE-NPO-12142-1] c38 N76-28563

STRUCTURAL MEMBERS
Broadband chokes and absorbers to reduce spurious radiation patterns of antenna array caused by support structures
[NASA-CASE-XMS-05303] c07 N69-27462

Electro-optical/computer system for aligning large structural members and maintaining correct position
[NASA-CASE-XMP-02029] c14 N70-31955

Nut and bolt fastener permitting all-directional movement of skin sections with respect to supporting structure
[NASA-CASE-XLA-01807] c15 N71-10799

Universal joints for connecting two displaced shafts or members
[NASA-CASE-NPO-10646] c15 N71-28467

Fabrication of light weight panel structure using pairs of elongate hollow ribs of semicircular configuration
[NASA-CASE-LAR-11052-1] c32 N73-13929

Device for securing together structural members with axially stretched bolt and nut
[NASA-CASE-GSC-11149-1] c15 N73-30457

Method of laminating structural members
[NASA-CASE-XLA-11028-1] c24 N74-27035

Folding structure fabricated of rigid panels
[NASA-CASE-XHO-02146] c18 N75-27040

Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264

Structural members, method and apparatus
[NASA-CASE-MSC-16217-1] c18 N78-22146

STRUCTURAL STABILITY
Latching device
[NASA-CASE-MFS-21606-1] c37 N75-19685

Flanged major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562

STRUCTURAL VIBRATION
Rectangular electric conductors for conductor cables to withstand spacecraft vibration and controlled atmosphere
[NASA-CASE-MFS-14741] c09 N70-20737

Determining sway of buildings by low frequency device using pendulum
[NASA-CASE-XMP-00479] c14 N70-34794

Transducer for measuring deflections from vibrating structures
[NASA-CASE-XLA-03135] c32 N71-16428

STRUCTURES
Deformation measuring apparatus with feedback control for arbitrarily shaped structures
[NASA-CASE-LAR-10098] c32 N71-26681

STRUTS
Low onset rate energy absorber in form of strut assembly for crew couch of Apollo command module
[NASA-CASE-MSC-12279-1] c15 N70-35679

STUDS (STRUCTURAL MEMBERS)

Collapsible support for antenna reflector applied to installation of spacecraft antennas [NASA-CASE-NPO-11751] c07 N73-24176

Locking redundant link [NASA-CASE-LAR-11900-1] c37 N79-14382

STUDS (STRUCTURAL MEMBERS)

Design of quick release locking pin for joining two or more load-carrying structural members [NASA-CASE-NPS-18495] c15 N72-11385

Tool for mounting and removing studs with adhesive coated head portion [NASA-CASE-NPS-20299] c15 N72-11392

Insert facing tool --- manually operated cutting tool for forming studs in honeycomb material [NASA-CASE-NPS-21485-1] c37 N74-25968

STYRENES

Heat resistant polymers of oxidized styrylphosphine [NASA-CASE-HSC-14903-1] c27 N78-32256

SUBLIMATION

Tubular sublimatory evaporator heat sink [NASA-CASE-ARC-10912-1] c34 N77-19353

SUBMARINES

Low density bismaleimide-carbon microballoon composites --- aircraft and submarine compartment safety [NASA-CASE-ARC-11040-2] c24 N78-27184

SUBMINIATURIZATION

Micromicroampere current measuring circuit, with two subminiature thermionic diodes with filament cathodes [NASA-CASE-INP-00384] c09 N71-13530

SUBREFLECTORS

Dish antenna having switchable beamwidth --- with truncated concave ellipsoid subreflector [NASA-CASE-GSC-11760-1] c33 N75-19516

SUBSONIC SPEED

Aerospace vehicle with variable planform for hypersonic and subsonic flight [NASA-CASE-XLA-00805] c31 N70-38010

Construction of leading edges of surfaces for serial vehicles performing from subsonic to above transonic speeds [NASA-CASE-XLA-01486] c01 N71-23497

Airfoil shape for flight at subsonic speeds --- design analysis and aerodynamic characteristics of the GAW-1 airfoil [NASA-CASE-LAR-10585-1] c02 N76-22154

SUBSONIC WIND TUNNELS

Variable geometry wind tunnel for testing aircraft models at subsonic speeds [NASA-CASE-XLA-07430] c11 N72-22246

SUBSTRATES

Means and methods of depositing thin films on substrates [NASA-CASE-INP-00595] c15 N70-34967

Fabrication of solar cell banks for attaching solar cells to base members or substrates [NASA-CASE-INP-00826] c03 N71-20895

Method and apparatus for fabricating solar cell panels [NASA-CASE-INP-03413] c03 N71-26726

Fabrication of polycrystalline solar cells on low-cost substrates [NASA-CASE-GSC-12022-1] c44 N76-28635

Attaching of strain gages to substrates [NASA-CASE-FRC-10093-1] c35 N78-18393

Process for producing a well-adhered durable optical coating on an optical plastic substrate --- abrasion resistant polymethyl methacrylate lenses [NASA-CASE-ARC-11039-1] c74 N78-32854

Method for applying photographic resists to otherwise incompatible substrates [NASA-CASE-HSC-18107-1] c35 N79-19319

SUBSTRUCTURES

Supporting structure for simultaneous exposure of pellets to X rays [NASA-CASE-INP-06031] c15 N71-15606

Opto-mechanical subsystem with temperature compensation through isothermal design [NASA-CASE-GSC-12059-1] c35 N77-27366

A system for plotting subsoil structure and method therefor [NASA-CASE-NPO-14191-1] c46 N79-20555

A system for detecting substructure microfractures and method therefor [NASA-CASE-NPO-14192-1] c46 N79-20556

SUBJECT INDEX

SULFATES

Nitroaniline sulfate, intumescent paints [NASA-CASE-ARC-10099-1] c18 N71-15469

SULFONES

Electrolytic cell structure [NASA-CASE-LAR-11042-1] c33 N75-27252

SULFONIC ACID

Intumescent coatings containing 4,4'-dinitrosulfanilide [NASA-CASE-ARC-11042-1] c24 N78-14096

SULFUR COMPOUNDS

Mercaptan terminated polymer containing sulfonic acid salts of nitrosubstituted aromatic amines for heat and moisture resistant coatings [NASA-CASE-ARC-10325] c06 N72-25147

SULFUR DIOXIDES

Stack plume visualization system [NASA-CASE-LAR-11675-1] c45 N76-17656

Process for removing sulfur dioxide from gas streams --- using iron as a catalyst [NASA-CASE-HSC-16299-1] c45 N77-31668

Simultaneous treatment of SO2 containing stack gases and waste water [NASA-CASE-HSC-16258-1] c45 N79-12584

SUB ROLES

Describing circuit for obtaining sum of squares of numbers [NASA-CASE-IGS-04765] c08 N71-18693

SUN

Sun tracking solar energy collector [NASA-CASE-NPO-13921-1] c44 N79-14526

SUNGLASSES

Pliable frame for sunglasses in emergency survival kits [NASA-CASE-XNS-06064] c05 N71-23096

SUNLIGHT

Illumination system design for use as sunlight simulator in space environment simulators with multiple light sources reflected to single virtual source [NASA-CASE-HQN-10781] c23 N71-30292

Illumination control apparatus for compensating solar light [NASA-CASE-KSC-11010-1] c74 N79-12890

SUPERCONDUCTING MAGNETS

Cryogenic flux-gated magnetometer using superconductors [NASA-CASE-XAC-02407] c14 N69-27423

Improved alternator with windings of superconducting materials acting as permanent magnet [NASA-CASE-XLE-02824] c03 N69-39890

Segmented superconducting magnet producing staggered magnetic field and suitable for broadband traveling wave masers [NASA-CASE-XGS-10518] c16 N71-28554

Operating properties of superconducting magnet in vacuum environment [NASA-CASE-INP-06503] c23 N71-29049

Magnetometer using superconducting rotating body [NASA-CASE-NPO-13388-1] c35 N76-16390

Stable superconducting magnet --- high current levels below critical temperature [NASA-CASE-INP-05373-1] c33 N79-21264

SUPERCONDUCTIVITY

Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature [NASA-CASE-XLE-02823] c09 N71-23443

Superconductive resonant cavity for improved signal to noise ratio in communication signal [NASA-CASE-HSC-12259-2] c07 N72-33146

Superconducting magnetic field trapping device for producing magnetic field in air [NASA-CASE-INP-01185] c26 N73-28710

Doped Josephson tunneling junction for use in a sensitive IR detector [NASA-CASE-NPO-13348-1] c33 N75-31332

SUPERCONDUCTORS

Superconductive accelerometer employing variable force principle to determine acceleration of bodies [NASA-CASE-INP-01099] c14 N71-15969

Controlled diffusion reaction process for masking substrate of twisted multifilament superconductive ribbon [NASA-CASE-LEW-11726-1] c26 N73-26752

Twisted wire or tube superconductor for filament windings

SUBJECT INDEX

SUPPORTS

- [NASA-CASE-LEW-11015] c26 N73-32571
- Germanium coated microbridge and method
- [NASA-CASE-MFS-23274-1] c33 N78-13320
- SUPERFLUIDITY**
- Helium refining by superfluidity
- [NASA-CASE-XNP-00733] c06 N70-34946
- Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
- [NASA-CASE-NPO-13346-1] c36 N76-29575
- SUPERHEATING**
- Thermal energy storage system --- operating on superheating of liquids
- [NASA-CASE-MFS-23167-1] c44 N76-31667
- SUPERHIGH FREQUENCIES**
- Dual band combiner for horn antenna
- [NASA-CASE-NPO-14519-1] c32 N79-17068
- SUPERSONIC AIRCRAFT**
- Variable sweep wing configuration for supersonic aircraft
- [NASA-CASE-XLA-00230] c02 N70-33255
- Supersonic aircraft variable sweep wing planform for varying aspect ratio
- [NASA-CASE-XLA-00350] c02 N70-38011
- Development and characteristics of variable sweep wing control system for supersonic aircraft
- [NASA-CASE-XLA-03659] c02 N71-11041
- Development and characteristics of translating horizontal tail assembly for supersonic aircraft
- [NASA-CASE-XLA-08801-1] c02 N71-11043
- Design of supersonic aircraft with novel fixed, swept wing planform
- [NASA-CASE-XLA-04451] c02 N71-12243
- Absorptive, nonreflecting barrier mounted between closely spaced jet engines on supersonic aircraft, for preventing shock wave interference
- [NASA-CASE-XLA-02865] c28 N71-15563
- Oblique-wing supersonic aircraft
- [NASA-CASE-ARC-10470-3] c05 N76-29217
- SUPERSONIC COMBUSTION**
- Supersonic-combustion rocket
- [NASA-CASE-LEW-11058-1] c20 N74-13502
- Hypersonic airbreathing missile
- [NASA-CASE-LAR-12264-1] c15 N78-32168
- SUPERSONIC DRAG**
- Bluff-shaped annular configuration for supersonic decelerator for reentry vehicles
- [NASA-CASE-XLE-00222] c02 N70-37939
- SUPERSONIC FLIGHT**
- Variable aspect ratio and variable sweep delta wing planforms for supersonic aircraft
- [NASA-CASE-XLA-00221] c02 N70-33266
- Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
- [NASA-CASE-XLA-08967] c02 N71-27088
- SUPERSONIC FLOW**
- Optical sensing of supersonic flows by correlating deflections in laser beams through flow
- [NASA-CASE-MFS-20642] c14 N72-21407
- Stagnation pressure probe --- for measuring pressure of supersonic gas streams
- [NASA-CASE-LAR-11139-1] c35 N74-32878
- SUPERSONIC INLETS**
- Airflow control system for supersonic inlets
- [NASA-CASE-LEW-11188-1] c02 N74-20646
- Shock position sensor for supersonic inlets --- measuring pressure in the throat of a supersonic inlet
- [NASA-CASE-LEW-11915-1] c35 N76-14431
- Hypersonic airbreathing missile
- [NASA-CASE-LAR-12264-1] c15 N78-32168
- SUPERSONIC NOZZLES**
- Penshaped, supersonic exhaust nozzle design
- [NASA-CASE-XLE-00057] c28 N70-38711
- Telescoping-spike supersonic nozzle for turbojet or ramjet engines
- [NASA-CASE-XLE-00005] c28 N70-39899
- Electric arc heater with supersonic nozzle and fixed arc length for use in high temperature wind tunnels
- [NASA-CASE-XAC-01677] c09 N71-20816
- SUPERSONIC SPEEDS**
- Continuous operation, single phased, induction plasma accelerator producing supersonic speeds
- [NASA-CASE-XLA-01354] c25 N70-36946
- Static pressure probe
- [NASA-CASE-LAR-11552-1] c35 N76-14429
- SUPERSONIC TRANSPORTS**
- Position locating system for remote aircraft using voice communication and digital signals
- [NASA-CASE-GSC-10087-2] c21 N71-13958
- Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
- [NASA-CASE-GSC-10087-1] c02 N71-19287
- System and method for position locating for air traffic control involving supersonic transports
- [NASA-CASE-GSC-10087-3] c07 N72-12080
- Doppler compensated communication system for locating supersonic transport position
- [NASA-CASE-GSC-10087-4] c07 N73-20174
- Supersonic transport --- using canard surfaces
- [NASA-CASE-LAR-11932-1] c05 N78-32086
- SUPERSONIC WIND TUNNELS**
- Wind tunnel
- [NASA-CASE-LAR-10135-1] c09 N79-21083
- SUPPORT INTERFERENCE**
- Spherical bearing --- to reduce vibration effects
- [NASA-CASE-MFS-23447-1] c37 N79-11404
- SUPPORT SYSTEMS**
- Hydraulic support apparatus for dynamic testing of space vehicles under near-free flight conditions
- [NASA-CASE-XNP-03248] c11 N71-10604
- Supporting structure for simultaneous exposure of pellets to X rays
- [NASA-CASE-XNP-06031] c15 N71-15606
- Multilegged support system for wind tunnel test models subjected to thermal dynamic loading
- [NASA-CASE-XLA-01326] c11 N71-21481
- Adjustable support device with jacket screw for altering distance between base and supported member
- [NASA-CASE-NPO-10721] c15 N72-27884
- Hydrostatic bearing support
- [NASA-CASE-LEW-11158-1] c37 N77-28986
- SUPPORTS**
- Support techniques for restraint of slender bodies such as launch vehicles
- [NASA-CASE-XLA-02704] c11 N69-21540
- Pneumatic control of telescopic mirror support system
- [NASA-CASE-XLA-03271] c11 N69-24321
- Optical scanner mounted on rotating support structure with method of compensating for image or satellite rotation
- [NASA-CASE-XGS-02401] c14 N69-27485
- Support for flexible conductor cable between drawers or racks holding electronic equipment and cabinet assembly housing drawers or racks
- [NASA-CASE-XNP-07587] c15 N71-18701
- Swivel support for gas bearing for position adjustment between ball and supporting cup
- [NASA-CASE-XNP-07808] c15 N71-23812
- Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
- [NASA-CASE-MFS-14017] c14 N71-26627
- Gas bearing for model support with capacity for measuring angular displacement of model in bearing
- [NASA-CASE-XLA-09346] c15 N71-28740
- Adjustable rigid mount for tribedral mirror formed of alloy with small coefficient of thermal expansion supporting screws and spring-biased plates
- [NASA-CASE-XNP-08907] c23 N71-29123
- Slotted fine-adjustment support for optical devices
- [NASA-CASE-MFS-20249] c15 N72-11386
- Base support for expandable and contractible coupling between two members
- [NASA-CASE-NPO-11059] c15 N72-17454
- Optical mirror support system
- [NASA-CASE-XER-07896-2] c23 N72-22673
- Fixture for supporting articles during vibration tests comprising integral annular unit
- [NASA-CASE-MFS-20523] c14 N72-27412
- Design and development of test stand system for supporting test items in vacuum chamber
- [NASA-CASE-MFS-21362] c11 N73-20267
- Collapsible support for antenna reflector applied to installation of spacecraft antennas
- [NASA-CASE-NPO-11751] c07 N73-24176

SUPPRESSORS

Method of making porous conductive supports for electrodes --- by electroforming and stacking nickel foils
 [NASA-CASE-GSC-11367-1] c44 N74-19692
 Thrust-isolating mounting --- characteristics of support for loads mounted in spacecraft
 [NASA-CASE-NPS-21680-1] c18 N74-27397
 Locking mechanism for orthopedic braces
 [NASA-CASE-GSC-12082-2] c52 N77-27694
 Variable contour securing system
 [NASA-CASE-HSC-16270-1] c37 N78-27423

SUPPRESSORS

Electronic background suppression field scanning sensor for detecting point source targets
 [NASA-CASE-IGS-05211] c07 N69-39980

SURFACE ACOUSTIC WAVE DEVICES

Distributed feedback acoustic surface wave oscillator
 [NASA-CASE-NPO-13673-1] c71 N77-26919

SURFACE DEFECTS

Surface defect detection by reflected microwave radiation pattern
 [NASA-CASE-ARC-10009-1] c15 N71-17822
 Method and device for detection of surface discontinuities or defects
 [NASA-CASE-HSC-14187-1] c35 N74-32879

SURFACE DIFFUSION

Metallic film diffusion into metal or ceramic surfaces for boundary lubrication in aerospace environments
 [NASA-CASE-XLE-01765] c18 N71-10772

SURFACE FINISHING

Development of procedure for producing thin transparent films of zinc oxide on transparent refractory substrate
 [NASA-CASE-FRC-10019] c15 N73-12487
 Device and method for determining X ray reflection efficiency, scattering properties, and surface finish of optical surfaces
 [NASA-CASE-NPS-20243] c23 N73-13662
 Surface finishing --- for aircraft wings
 [NASA-CASE-HSC-12631-1] c24 N77-28225
 Modification of the electrical and optical properties of polymers --- ion irradiation
 [NASA-CASE-LW-13027-1] c27 N79-11216
 Surface finishing --- adhesive bonding of plastic film to metal airfoil surfaces
 [NASA-CASE-HSC-12631-3] c26 N79-21183

SURFACE GEOMETRY

Diffraction grating configuration for X-ray and ultraviolet focusing
 [NASA-CASE-GSC-12357-1] c74 N78-32857

SURFACE IONIZATION

Electrodes having array of small surfaces for field ionization
 [NASA-CASE-ERC-10013] c09 N71-26678
 Development of method and apparatus for detecting surface ions on silicon diodes and transistors
 [NASA-CASE-ERC-10325] c15 N72-25457

SURFACE LAYERS

Bismuth and lead surface coatings for gas bearings in aerospace engineering
 [NASA-CASE-XGS-02011] c15 N71-20739
 Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient
 [NASA-CASE-ERC-10073-1] c24 N74-19769

SURFACE PROPERTIES

Anti-wettable materials brazing processes using titanium and zirconium for surface pretreatment
 [NASA-CASE-XNS-03537] c15 N69-21471
 Ablation article and surface for analyzing flow transition on ablative surface
 [NASA-CASE-LAR-10439-1] c33 N73-27796
 Dual measurement ablation sensor
 [NASA-CASE-LAR-10105-1] c34 N74-15652
 Apparatus for scanning the surface of a cylindrical body
 [NASA-CASE-NPO-11861-1] c36 N74-20009
 Apparatus for microbiological sampling --- including automatic swabbing
 [NASA-CASE-LAR-11069-1] c35 N75-12272
 Penetrometer --- for determining load bearing characteristics of inclined surfaces
 [NASA-CASE-NPO-11103-1] c35 N77-27367
 Bearing material
 [NASA-CASE-LW-11930-3] c24 N77-32249

SUBJECT INDEX

Device for measuring the contour of a surface
 [NASA-CASE-LAR-11869-1] c74 N78-27904
 Displacement probes with self-contained exciting medium
 [NASA-CASE-LAR-11690-1] c35 N78-31406

SURFACE REACTIONS
 Chemical spot test for identifying magnesium or magnesium alloys used in aerospace applications
 [NASA-CASE-LAR-10953-1] c17 N73-27446

SURFACE ROUGHNESS
 Roughness detector for recording surface pattern of irregularities
 [NASA-CASE-XLA-00203] c14 N70-34161
 Optical apparatus for visual detection of roundness and regularity of cone surfaces
 [NASA-CASE-XMF-00462] c14 N70-34298
 Describing device for surveying contour of surface using X-Y plotter and traveling transducer
 [NASA-CASE-XLA-08646] c14 N71-17586
 Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks
 [NASA-CASE-NPO-13862-1] c35 N79-10391

SURFACE ROUGHNESS EFFECTS
 Aerodynamically stable meteorological balloon using surface roughness effect
 [NASA-CASE-XMF-04163] c02 N71-23007

SURFACE VEHICLES
 Optimal control system for automatic speed regulation of electric driven motor vehicle
 [NASA-CASE-NPO-11210] c11 N72-20244
 Self-propelled vehicle with wheel, track laying, and walking capability for exploratory exploration
 [NASA-CASE-NPO-11366] c11 N73-26238
 Short range laser obstacle detector --- for surface vehicles using laser diode array
 [NASA-CASE-NPO-11856-1] c36 N74-15145
 Vehicle locating system utilizing AM broadcasting station carriers
 [NASA-CASE-NPO-13217-1] c32 N75-26194
 Vehicular impact absorption system
 [NASA-CASE-NPO-14014-1] c37 N79-10420

SURFACE WAVES
 Development of method for suppressing excitation of electromagnetic surface waves on dielectric converter antenna
 [NASA-CASE-XLA-10772] c07 N71-28980

SURFACES
 Techniques for recovery of multistage rocket vehicles by providing lifting surfaces on individual sections
 [NASA-CASE-XMF-00389] c31 N70-34176
 Kinetic and static friction force measurement between magnetic tape and magnetic head surfaces
 [NASA-CASE-XMF-08680] c14 N71-22995
 Three-axis adjustable loading structure
 [NASA-CASE-FRC-10051-1] c35 N74-13129
 Photoelectron spectrometer with means for stabilizing sample surface potential
 [NASA-CASE-NPO-13772-1] c35 N78-10429

SURFACTANTS
 Surfactant-assisted liquefaction of particulate carbonaceous substances
 [NASA-CASE-NPO-13904-1] c25 N79-11152

SURGERY
 Intra-ocular pressure normalization apparatus
 [NASA-CASE-LW-12955-1] c52 N77-30736
 Intra-ocular pressure normalization technique and equipment
 [NASA-CASE-LW-12723-1] c52 N77-30737
 Tissue macerating instrument
 [NASA-CASE-LW-12668-1] c52 N78-14773

SURGES
 Silicon controlled rectifier inverter with compensation of transients to avoid false gating
 [NASA-CASE-XLA-08507] c09 N69-39984
 Turn on current transient limiter for controlling peak current flow in high capacity load
 [NASA-CASE-GSC-10413] c10 N71-26531

SURGICAL INSTRUMENTS
 Ultrasonic device for ophthalmic eye surgery with safe removal of macerated material
 [NASA-CASE-LW-11669-1] c05 N73-27062
 Ophthalmic liquifaction pump
 [NASA-CASE-LW-12051-1] c52 N75-33640

SUBJECT INDEX

SWITCHING CIRCUITS

SURVIVAL EQUIPMENT

- Survival couch for aircraft or spacecraft crews
[NASA-CASE-XLA-00118] c05 N70-33285
- Lightweight life preserver without fastening devices
[NASA-CASE-XMS-00864] c05 N70-36493
- Pliable frame for sunglasses in emergency survival kits
[NASA-CASE-XMS-06064] c05 N71-23096

SUSPENDING (HANGING)

- Parallel motion suspension device for measuring instruments
[NASA-CASE-XNP-01567] c15 N70-41310
- Cable suspension and inclined walkway system for simulating reduced or zero gravity environments
[NASA-CASE-XLA-01787] c11 N71-16028
- Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
[NASA-CASE-LAB-10193-1] c15 N71-27146

SUSPENSION SYSTEMS (VEHICLES)

- An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas
[NASA-CASE-NPO-14395-1] c37 N79-12446

SWEAT

- Sweat collection capsule
[NASA-CASE-ABC-11031-1] c54 N78-22720

SWEAT COOLING

- Transpiration cooled turbine blade made from metallic or ceramic wires
[NASA-CASE-XLE-00020] c15 N70-33226
- Transpirationally cooled heat ablation system for interplanetary spacecraft reentry shielding
[NASA-CASE-XMS-02677] c31 N70-42075
- Method of electroforming a rocket chamber
[NASA-CASE-LEW-11118-1] c20 N74-32919

SWEEP CIRCUITS

- Transistorized circuit for producing multiple slope voltage sweep
[NASA-CASE-XMS-03542] c09 N71-28926

SWEEP EFFECT

- Supersonic or hypersonic vehicle control system comprising elevons with hinge line sweep and free of adverse aerodynamic cross coupling
[NASA-CASE-XLA-08967] c02 N71-27088

SWEEP FREQUENCY

- Swept group delay measurement
[NASA-CASE-NPO-13909-1] c33 N78-25319

SWELLING

- Para-benzoquinone dioxide and concentrated mineral acid processed to yield intumescent or fire resistant, heat insulating materials
[NASA-CASE-ABC-10304-1] c18 N73-26572

SWEEP WINGS

- Design of supersonic aircraft with novel fixed, swept wing planform
[NASA-CASE-XLA-04451] c02 N71-12243
- Acoustically swept rotor
[NASA-CASE-ABC-11106-1] c05 N77-31130

SWIRLING

- Slosh and swirl alleviator for liquid propellant tanks during transport and flight
[NASA-CASE-XLA-05749] c15 N71-19569
- Swirl can, full-annulus combustion chambers for high performance gas turbine engines
[NASA-CASE-LEW-11326-1] c23 N73-30665

SWITCHES

- Switching mechanism with energy stored in coil spring
[NASA-CASE-XGS-00473] c03 N70-38713
- Digital memory system with multiple switch cores for driving each word location
[NASA-CASE-XNP-01466] c10 N71-26434
- Radio frequency controlled solid state switch
[NASA-CASE-ABC-10136-1] c09 N72-22202

SWITCHING CIRCUITS

- Solid state switching circuit design to increase current capacity of low rated relay contacts
[NASA-CASE-XNP-09228] c09 N69-27500
- Power control switching circuit using low voltage semiconductor controlled rectifiers for high voltage isolation
[NASA-CASE-XNP-02713] c10 N69-39888
- Selective gold diffusion on monolithic silicon chips for switching and nonswitching amplifier devices and circuits and linear and digital logic circuits

- [NASA-CASE-EBC-10072] c09 N70-11148
- Electrical power system for space flight vehicles operating over extended periods
[NASA-CASE-XNP-00517] c03 N70-34157
- High speed low level voltage commutating switch
[NASA-CASE-XAC-00060] c09 N70-39915
- Switching circuit with regeneratively connected transistors eliminating power consumption when not in use
[NASA-CASE-XNP-02654] c10 N70-42032
- Using electron beam switching for brushless motor commutation
[NASA-CASE-XGS-01451] c09 N71-10677
- Increasing power conversion efficiency of electronic amplifiers by power supply switching
[NASA-CASE-XMS-00945] c09 N71-10798
- Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
[NASA-CASE-XLA-07497] c09 N71-12514
- Describing magnetic core current switching device for steering bipolar current pulses to memory units
[NASA-CASE-NPO-10201] c08 N71-18694
- Transistorized dc-coupled multivibrator with noninverted output signal
[NASA-CASE-XNP-09450] c10 N71-18723
- Reversible current directing circuitry for reversible motor control
[NASA-CASE-XLA-09371] c10 N71-18724
- Constructing Exclusive-Or digital logic circuit in single module
[NASA-CASE-XLA-07732] c08 N71-18751
- Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864
- Sight switch using infrared source and sensor mounted beside eye
[NASA-CASE-XNP-03934] c09 N71-22985
- Complementary regenerative transistorized switch circuit employing positive and negative feedback
[NASA-CASE-XGS-02751] c09 N71-23015
- Reliable magnetic core circuit apparatus with application in selection matrices for digital memories
[NASA-CASE-XNP-01318] c10 N71-230332
- Electric circuit for producing high current pulse having fast rise and fall time
[NASA-CASE-XMS-04919] c09 N71-23270782
- Electric circuit for reversing direction of current flow
[NASA-CASE-XNP-00952] c10 N71-23271
- Switching series regulator with gating control network
[NASA-CASE-XMS-09352] c09 N71-23316
- Microwave waveguide switch with rotor position control
[NASA-CASE-XNP-06507] c09 N71-23548
- Signaling summary alarm circuit with semiconductor switch for faulty contact indications
[NASA-CASE-XLE-03061-1] c10 N71-24798
- Solid state circuit for switching alternating current input signal as function of direct current gating transistor
[NASA-CASE-XNP-06505] c10 N71-24799
- Inverters for changing direct current to alternating current
[NASA-CASE-XGS-06226] c10 N71-25950
- Design and development of multistage current steering switch with inductively coupled magnetic cores
[NASA-CASE-XNP-08567] c09 N71-26000
- Pulse duration control device for driving slow response time loads in selected sequence including switching and delay circuits and magnetic storage
[NASA-CASE-XGS-04224] c10 N71-26418
- Turn on current transient limiter for controlling peak current flow in high capacity load
[NASA-CASE-GSC-10413] c10 N71-26531
- Input radio frequency circuit for switching type absolute temperature measuring radiometer for noise sources
[NASA-CASE-EBC-11020] c14 N71-26774
- Inverter drive circuit for semiconductor switch
[NASA-CASE-LEW-10233] c10 N71-27126

SWITCHING THEORY

SUBJECT INDEX

Phase locked demodulator with bandwidth switching amplifier circuit
[NASA-CASE-INP-01107] c10 N71-28859

Monostable multivibrator for producing output pulse widths with positive feedback NOR gates
[NASA-CASE-MSC-13492-1] c10 N71-28860

Digital magnetic core memory with sensing amplifier circuits
[NASA-CASE-INP-01012] c08 N71-28925

Current regulating voltage divider design with load current shunting
[NASA-CASE-MPS-20935] c09 N71-34212

Relay controlled voltage switching unit for scanning circuitry of star tracker
[NASA-CASE-NPO-11253] c09 N72-17157

Spacecraft solar cell system with switching circuit to provide compensation for environmental changes
[NASA-CASE-GSC-10669-1] c03 N72-20031

Flow rate switch for detecting variations in fluid flow velocity through conduits of pressurized systems
[NASA-CASE-NPO-10722] c09 N72-20199

Switching type voltage regulator with relatively simple circuit arrangement
[NASA-CASE-LEW-11005-1] c09 N72-21243

Development and characteristics of data multiplexer circuit using field effect transistors arranged in tree switching configuration
[NASA-CASE-NPO-11333] c08 N72-22162

Pulse coupling circuit with switch between generator and winding
[NASA-CASE-LEW-10433-1] c09 N72-22197

Solid state remote circuit selector switching circuit
[NASA-CASE-LEW-10387] c09 N72-22201

Pressure operated electrical switch responsive to pressure decrease after pressure increase
[NASA-CASE-LAR-10137-1] c09 N72-22204

Transistorized switching logic circuits with tunnel diodes
[NASA-CASE-GSC-10878-1] c10 N72-22236

Switching circuit for control of cathode ray tube beam with fast rise time for output signal
[NASA-CASE-KSC-10647-1] c10 N72-31273

Electronic video editor for switching video input signals to common output channel
[NASA-CASE-KSC-10003] c10 N73-13235

Solid state switch for variable circuit switching
[NASA-CASE-NPO-10817-1] c08 N73-30135

Transparent switchboard which permits optical display devices to be adapted for use in man machine communications
[NASA-CASE-MSC-13746-1] c10 N73-32143

High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814

Isolated output system for a class D switching-mode amplifier
[NASA-CASE-MPS-21616-1] c33 N75-30429

Dual digital video switcher
[NASA-CASE-KSC-10782-1] c33 N75-30431

Multi-computer multiple data path hardware exchange system
[NASA-CASE-NPO-13422-1] c60 N76-14818

Sustained arc ignition system
[NASA-CASE-LEW-12444-1] c33 N77-28385

Dual mode solid state power switch
[NASA-CASE-MPS-22880-2] c33 N77-31407

Window comparator
[NASA-CASE-FRC-10090-1] c33 N78-18308

System for automatically switching transformer coupled lines
[NASA-CASE-MSC-16697-1] c33 N78-22298

Self-reconfiguring solar cell system
[NASA-CASE-LEW-12586-1] c44 N78-27520

SWITCHING THEORY

Multiple circuit switch apparatus requiring minimum hand and eye movement by operator
[NASA-CASE-XAC-03777] c10 N71-15909

SWIVELS

Swivel support for gas bearing for position adjustment between ball and supporting cup
[NASA-CASE-INP-07808] c15 N71-23812

SYNCHRONISM

Synchronizing apparatus for multi-access satellite time division multiplex system
[NASA-CASE-XGS-05918] c07 N69-39974

Circuitry for generating sync signals in FM communication systems including video information
[NASA-CASE-INP-10830] c07 N71-11281

Development of method for synchronizing clocks at several ground stations based on signals received from spacecraft or satellites
[NASA-CASE-INP-08875] c10 N71-23099

Pulse generator for synchronizing or resetting electronic signals without requiring separate external source
[NASA-CASE-XGS-03632] c09 N71-23311

Time synchronization system for synchronizing clocks at remote locations with master clock using moon reflected coded signals
[NASA-CASE-NPO-10143] c10 N71-26326

System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes
[NASA-CASE-NPO-10214] c10 N71-26577

SYNCHRONIZED OSCILLATORS

Development of phase demodulation system with two phase locked loops
[NASA-CASE-INP-00777] c10 N71-19469

Phase locked phase modulation system with voltage controlled oscillator for final phase linearity
[NASA-CASE-INP-05382] c10 N71-23544

Automatic frequency control device for providing frequency reference for voltage controlled oscillator
[NASA-CASE-KSC-10393] c09 N72-21247

SYNCHRONIZERS

Development and characteristics of burst synchronization detection system
[NASA-CASE-XMS-05605-1] c10 N71-19468

Time division relay synchronizer with master sync pulse for activating binary counter to produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773

Design and development of synchronous servo loop control system
[NASA-CASE-INP-03744] c10 N71-20448

Digital synchronizer for extracting binary data in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24613

Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865

Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12462-1] c32 N74-20809

Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12494-1] c32 N74-20810

System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519

Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245

SYNCHRONOUS MOTORS

Synchronous dc direct-drive system comprising multiple-loop hybrid control system controlling load directly connected to actuator
[NASA-CASE-GSC-10065-1] c10 N71-27136

Motor run-up system --- power lines
[NASA-CASE-NPO-13374-1] c33 N75-19524

SYNCHRONOUS SATELLITES

Position locating system for remote aircraft using voice communication and digital signals
[NASA-CASE-GSC-10087-2] c21 N71-13958

Serrodyne traveling wave tube reentrant amplifier for synchronous communication satellites operating at microwave frequencies
[NASA-CASE-XGS-01022] c07 N71-16088

Traffic control system for supersonic transports using synchronous satellite for data relay between vehicles and ground station
[NASA-CASE-GSC-10087-1] c02 N71-19287

Tracking antenna system with array for synchronous satellite or ground based radar
[NASA-CASE-GSC-10553-1] c07 N71-19854

Satellite network synchronization system with multiple access to multiplex repeater
[NASA-CASE-GSC-10390-1] c07 N72-11149

Development of device for simulating charge and discharge cycle of battery in synchronous orbit
[NASA-CASE-GSC-11211-1] c03 N72-25020

Camera arrangement --- for satellite scanning of earth or sky
[NASA-CASE-GSC-12032-2] c35 N76-19408

SUBJECT INDEX

SYSTEMS ENGINEERING

- Satellite personal communications system
[NASA-CASE-NPO-14480-1] c32 N78-25275
- Systems and methods for determining radio frequency interference
[NASA-CASE-GSC-12150-1] c32 N79-11265
- SYNTHESIS**
- Synthesis of polymeric schiff bases by schiff-base exchange reactions
[NASA-CASE-XNP-08651] c06 N71-11236
- Preparation of ordered poly/arylenesiloxane/polymers
[NASA-CASE-XNP-10753] c06 N71-11237
- Synthesis and chemical properties of imidazopyrrolone/imide copolymers
[NASA-CASE-XLA-08802] c06 N71-11238
- Stable polyimide synthesis from mixtures of monomeric diamines and polycarboxylic acid esters
[NASA-CASE-LEW-11325-1] c06 N73-27980
- Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-1] c23 N78-22154
- Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ABC-11097-2] c23 N78-22155
- SYNTHESIZERS**
- Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-XGS-02317] c09 N71-23525
- SYNTHETIC APERTURE RADAR**
- Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks
[NASA-CASE-NPO-13862-1] c35 N79-10391
- Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N79-14268
- Real-time multiple-look synthetic aperture radar processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278
- Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-1] c32 N79-19195
- SYNTHETIC FIBERS**
- Manufacture of fluid containers from fused coated polyester sheets having resealable septum
[NASA-CASE-NPO-140123] c15 N71-24835
- Structure of fabric layers for micrometeoroid protection garment with capability for eliminating heat shorts for use in manufacturing space suits
[NASA-CASE-MSC-12109] c18 N71-26285
- Flexible barrier membrane comprising porous substrate and incorporating liquid gallium or indium metal used as sealant barriers for spacecraft walls and pumping liquid propellants
[NASA-CASE-XNP-08881] c17 N71-28747
- Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N78-25391
- Process for spinning flame retardant elastomeric compositions --- fabricating synthetic fibers for high oxygen environments
[NASA-CASE-MSC-14331-3] c27 N78-32262
- SYNTHETIC RESINS**
- Process permitting application of synthetic resin coating to irregular-shaped objects at ambient temperature
[NASA-CASE-XNP-06508] c18 N69-39895
- SYSTEM EFFECTIVENESS**
- System for the measurement of ultra-low stray light levels --- determining the adequacy of large space telescope systems
[NASA-CASE-NPS-23513-1] c74 N79-11865
- SYSTEM FAILURES**
- Tape recorder designed for low power consumption and resistance to operational failure under high stress conditions
[NASA-CASE-XGS-08259] c14 N71-23698
- Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-MSC-12531-1] c35 N75-30504
- SYSTEMS ANALYSIS**
- Analog to digital converter analyzing system
[NASA-CASE-NPO-10560] c08 N72-22166
- SYSTEMS ENGINEERING**
- Design of magnetohydrodynamic induction machine with end poles which produce compensating magnetic fields
[NASA-CASE-XNP-07481] c25 N69-21929
- Hovering type flying vehicle design and principle mechanisms for manned or unmanned use
[NASA-CASE-MSC-12111-1] c02 N71-11039
- Solar battery with interconnecting means for plural cells
[NASA-CASE-XNP-06506] c03 N71-11050
- Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190
- Design and operation of multi-feed cone Cassegrain antenna
[NASA-CASE-NPO-10539] c07 N71-11285
- Method and apparatus for measuring potentials in plasmas
[NASA-CASE-XLE-00821] c25 N71-15650
- Design and operation of viscous pendulum damper
[NASA-CASE-XLA-02079] c12 N71-16894
- Alarm system design for monitoring one or more relay circuits
[NASA-CASE-XMS-10984-1] c10 N71-19417
- Wide range analog data compression system
[NASA-CASE-XGS-02612] c08 N71-19435
- Space suit body heat exchanger design composed of thermal conductance yarn and liquid coolant loops
[NASA-CASE-XMS-09571] c05 N71-19439
- Silicon radiation detecting probe design for in vivo biomedical use
[NASA-CASE-XMS-01177] c05 N71-19440
- Design and operation of high speed binary-to-decimal conversion system
[NASA-CASE-XGS-01230] c08 N71-19544
- Sputter proof evaporant source design for use in vacuum deposition of solid thin films on substrates
[NASA-CASE-XNP-06065] c15 N71-20395
- Method and apparatus for fabrication of heat insulating and ablative reentry structures
[NASA-CASE-XMS-02009] c33 N71-20834
- Polarization diversity monopulse tracking receiver design without radio frequency switches
[NASA-CASE-XGS-03501] c09 N71-20864
- Pneumatic cantilever beams and platform for space erectable structure
[NASA-CASE-XLA-01731] c32 N71-21045
- Magnetically opened diaphragm design with camera shutter and expansion tube applications
[NASA-CASE-XLA-03660] c15 N71-21060
- Portable apparatus producing high velocity annular air column surrounding low velocity, filtered, superclean air central core for industrial clean room environmental control
[NASA-CASE-XNP-03212] c15 N71-22721
- Rotary spindle lathe attachments for machining geometrical cones
[NASA-CASE-XMS-04292] c15 N71-22722
- Apparatus and method for spin forming tubular elbows with high strength, uniform thickness, and close tolerances
[NASA-CASE-XNP-01083] c15 N71-22723
- Spacecraft air lock system to provide ingress and egress of astronaut without subjecting vehicular environment to vacuum of space
[NASA-CASE-XLA-02050] c31 N71-22968
- Method of stationkeeping for lenticular gravity gradient satellites
[NASA-CASE-XLA-03132] c31 N71-22969
- Filler valve design for supplying liquid propellants at high pressure to space vehicles
[NASA-CASE-XNP-01747] c15 N71-23024
- Method and apparatus for producing very low temperature refrigeration based on gas pressure balance
[NASA-CASE-XNP-08877] c15 N71-23025
- Monitoring circuit design for sampling circuit control and reduction of time-bandwidth in video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026
- Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042
- Variable duration pulse integrator design for integrating pulse duration modulated pulses with elimination of ripple content
[NASA-CASE-XLA-01219] c10 N71-23084
- Sealed electrochemical cell with flexible casing for varying electrolyte level in cell

[NASA-CASE-XGS-01513] c03 N71-23336
Mosaic semiconductor radiation detector and position indicator systems engineering for low energy particles
[NASA-CASE-XGS-03230] c14 N71-23401
Device for measuring two orthogonal components of force with gallium flotation of measuring target for use in vacuum environments
[NASA-CASE-XAC-04885] c14 N71-23790
Transducer circuit design with single coaxial cable for input and output connections including incorporation into miniaturized catheter transducer
[NASA-CASE-ARC-10132-1] c09 N71-24597
Method of attaching cover glass to silicon solar cell without using adhesive
[NASA-CASE-XLE-08569-2] c03 N71-24681
Development of attitude control system for sounding rocket stabilization during ballistic phase of flight
[NASA-CASE-XGS-01654] c31 N71-24750
Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
[NASA-CASE-NPO-10649] c07 N71-24840
Tuning arrangement for frequency control of magnetron-type electron discharge device
[NASA-CASE-XNP-09771] c09 N71-24841
Broadband modified turnstile antenna for use in space tracking and communications
[NASA-CASE-HSC-12209] c09 N71-24842
Apparatus to determine electric field strength by measuring deflection of electron beam impinging on target
[NASA-CASE-XMP-06617] c09 N71-24843
Binary to decimal decoder logic circuit design with feedback control and display device
[NASA-CASE-XKS-06167] c08 N71-24890
Noninterruptable digital counter circuit design with display device for pulse frequency modulation
[NASA-CASE-XNP-09759] c08 N71-24891
Quick disconnect duct coupling device for single-handed operation
[NASA-CASE-NPS-20395] c15 N71-24903
Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-NPS-20385] c09 N71-24904
Pneumatic mechanism for releasing hook and loop fasteners between large rigid structures
[NASA-CASE-XMS-10660-1] c15 N71-25975
Sealed fluorescent tube light unit capable of connection with other units to form string of work lights
[NASA-CASE-XKS-05932] c09 N71-26787
Apparatus for semiautomatic inspection of microfilmed documents for density, resolution, size, and position
[NASA-CASE-NPS-20240] c14 N71-26788
Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test
[NASA-CASE-NPO-10778] c14 N72-11364
Spacecraft solar cell system with switching circuit to provide compensation for environmental changes
[NASA-CASE-GSC-10669-1] c03 N72-20031
Electric storage battery with high impact resistance
[NASA-CASE-NPO-11021] c03 N72-20032
Method and apparatus for providing active attitude control for spacecraft by converting any attitude motion of vehicle into simple rotational motion
[NASA-CASE-HQN-10439] c21 N72-21624
Development of light sensing system for controlled orientation of object relative to sun or other light source
[NASA-CASE-NPO-11311] c14 N72-25414
Development of thrust control system for application to control of aircraft and spacecraft
[NASA-CASE-HSC-13397-1] c21 N72-25595
Development of computer program for estimating reliability of self-repair and fault-tolerant systems with respect to selected system and mission parameters
[NASA-CASE-NPO-13086-1] c15 N73-12495

Design and development of active control system for air cushion vehicle to reduce or eliminate effects of excessive vertical vibratory acceleration
[NASA-CASE-LAR-10531-1] c02 N73-13023
Measurement system for physical quantity represented by or converted to variable frequency signal
[NASA-CASE-NPS-20658-1] c14 N73-30386
Design of precision vertical alignment system using laser with gravitationally sensitive cavity
[NASA-CASE-ARC-10444-1] c16 N73-33397
System for calibrating pressure transducer
[NASA-CASE-LAR-10910-1] c35 N74-13132
Three mirror glancing incidence system for X-ray telescope
[NASA-CASE-NPS-21372-1] c74 N74-27866
Holographic system for nondestructive testing
[NASA-CASE-NPS-21704-1] c35 N75-25124
Compact pulsed laser having improved heat conductance
[NASA-CASE-NPO-13147-1] c36 N77-25502
Tetherline system for orbiting satellites
[NASA-CASE-NPS-23564-1] c15 N78-25119
On-site ammonia plant
[NASA-CASE-NPO-14233-1] c25 N78-27233
Redundant motor drive system
[NASA-CASE-NPS-23777-1] c37 N78-28460
Non-tracking solar energy collector system
[NASA-CASE-NPO-13813-1] c44 N78-31526
Noncontacting method for measuring angular deflection
[NASA-CASE-LAR-12178-1] c74 N79-11866

T

T SHAPE

Process for manufacturing cannula
[NASA-CASE-NPO-14073-1] c52 N78-25762
TACHOMETERS
Digital cardiometer incorporating circuit for measuring heartbeat rate of subject over predetermined portion of one minute also converting rate to beats per minute
[NASA-CASE-XMS-02399] c05 N71-22896
Brushless dc tachometer design with Hall effect crystals and output voltage magnitude proportional to rotor speed
[NASA-CASE-NPS-20385] c09 N71-24904
Development of instantaneous reading tachometer for measuring electrocardiogram signal rate
[NASA-CASE-NPS-20418] c14 N73-24473
Tachometer
[NASA-CASE-NPS-23175-1] c35 N77-30436
TAKEOFF
Aircraft instrument for indicating malfunctions during takeoff
[NASA-CASE-XLA-00100] c14 N70-36807
Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157
TANGENTS
Integrated circuit tangnet function generator
[NASA-CASE-HSC-13907-1] c10 N73-26230
TANK GEOMETRY
Liquid propellant tank design with semitoroidal bulkhead
[NASA-CASE-XMP-01899] c31 N70-41948
TANKS (CONTAINERS)
Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-HSC-12280] c27 N71-16348
Development of apparatus and method for testing leakage of large tanks
[NASA-CASE-XMP-02392] c32 N71-24285
Design and development of device to prevent clogging in hoppers containing particulate materials
[NASA-CASE-LAR-10961-1] c15 N73-12496
Floating baffle for tank drain
[NASA-CASE-KSC-10639] c15 N73-26472
Method of producing a storage bulb for an atomic hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029
TANTALUM
Oxygen-doped tantalum emitter for thermionic

SUBJECT INDEX

TELEMETRY

- Devices such as cesium vapor diodes
[NASA-CASE-NPO-11138] c03 N70-34646
- Arc electrode of graphite with tantalum ball tip
[NASA-CASE-XLE-04788] c09 N71-22987
- Organometallic compounds of niobium and tantalum
useful for film deposition
[NASA-CASE-XNP-04023] c06 N71-28808
- Thermocouples of tantalum and rhenium alloys for
more stable vacuum-high temperature performance
[NASA-CASE-LEW-12050-1] c35 N77-32454
- TANTALUM ALLOYS**
- Evaporating crucible of tantalum-tungsten foil,
nickel alumina bonding agent, and ceramic
coating
[NASA-CASE-XLA-03105] c15 N69-27483
- Tantalum modified ferritic iron base alloys
[NASA-CASE-LEW-12095-1] c26 N78-18182
- TANTALUM CARBIDES**
- Thermal shock and erosion resistant tantalum
carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206
- TANTALUM OXIDES**
- Development of thin film temperature sensor from
TaO
[NASA-CASE-NPO-11775] c26 N72-28761
- TAPE RECORDERS**
- Plural recorder system which limits signal
recording to signals of sufficient interest
[NASA-CASE-XMS-06949] c09 N69-21467
- Endless loop tape transport mechanism for
driving and tensioning recording medium in
magnetic tape recorder
[NASA-CASE-IGS-01223] c07 N71-10609
- Development of low friction magnetic recording
tape
[NASA-CASE-XGS-00373] c23 N71-15978
- Tape guidance system for multichannel digital
recording system
[NASA-CASE-XNP-09453] c08 N71-19420
- Design and development of synchronous servo loop
control system
[NASA-CASE-XNP-03744] c10 N71-20448
- Development of data storage system for storing
digital data in high density format on
magnetic tape
[NASA-CASE-XNP-02778] c08 N71-22710
- Digital telemetry system apparatus to reduce
tape recorder wow and flutter noise during
playback
[NASA-CASE-XGS-01812] c07 N71-23001
- Tape recorder designed for low power consumption
and resistance to operational failure under
high stress conditions
[NASA-CASE-IGS-08259] c14 N71-23698
- Transient video signal tape recorder with
expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
- Closed loop servosystem for variable speed tape
recorders onboard spacecraft
[NASA-CASE-NPO-10700] c07 N71-33613
- Design and characteristics of recording system
for selective reprocessing and filtering of
data to obtain optimum signal to noise ratios
[NASA-CASE-ERC-10112] c07 N72-21119
- Video tape recorder with scan conversion
playback for color television signals
[NASA-CASE-NPO-10166-1] c07 N73-22076
- Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391
- Method of and means for testing a tape
record/playback system
[NASA-CASE-MPS-22671-2] c35 N77-17426
- TAPERED COLUMNS**
- Method for shaping regeneratively cooled rocket
motor casing having minimum thickness at each
channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658
- Regeneratively cooled rocket motor casing with
tapered channels to insure minimum thicknesses
at each channel cross section for necessary
strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659
- TARGET ACQUISITION**
- Acquisition and tracking system for optical radar
[NASA-CASE-MPS-20125] c16 N72-13437
- Target acquisition antenna feed with reflector
system
[NASA-CASE-GSC-10064-1] c10 N72-22235
- Development of electronic detection system for
remotely determining number and movement of
enemy personnel
[NASA-CASE-ARC-10097-2] c07 N73-25160
- TARGET RECOGNITION**
- Electronic background suppression field scanning
sensor for detecting point source targets
[NASA-CASE-IGS-05211] c07 N69-39980
- TARGET SIMULATORS**
- Simulator method and apparatus for practicing
the mating of an observer-controlled object
with a target
[NASA-CASE-MPS-23052-2] c74 N79-13855
- TECHNOLOGY UTILIZATION**
- Two wavelength double pulse tunable dye laser
[NASA-CASE-LAR-12012-1] c36 N77-10517
- Collapsible corrugated horn antenna
[NASA-CASE-LAR-11745-1] c32 N77-24339
- Fuselage structure using advanced technology
metal matrix fiber reinforced composites
[NASA-CASE-LAR-11688-1] c05 N78-18045
- Method of cold welding using ion beam technology
[NASA-CASE-LEW-12982-1] c37 N78-28459
- TEFLON (TRADEMARK)**
- Reinforced PEP Teflon composite material
diffusion bonded to metal substrate
[NASA-CASE-MPS-20482] c15 N72-22492
- Method of producing a storage bulb for an atomic
hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029
- Lead-oxygen dc power supply system having a
closed loop oxygen and water system
[NASA-CASE-MPS-23059-1] c44 N76-27664
- Portable heatable container
[NASA-CASE-NPO-14237-1] c37 N78-24554
- TELECOMMUNICATION**
- Adaptive compression signal processor for PCM
communication systems
[NASA-CASE-XLA-03076] c07 N71-11266
- Circuitry for generating sync signals in FM
communication systems including video
information
[NASA-CASE-XNP-10830] c07 N71-11281
- Automatic estimation of signal to noise ratio
and other parameters in signal communication
systems
[NASA-CASE-XNP-05254] c07 N71-20791
- Digital synchronizer for extracting binary data
in receiver of PSK/PCM communication system
[NASA-CASE-NPO-10851] c07 N71-24513
- Encoders designed to generate comma free
biorthogonal Reed-Muller type code comprising
conversion of 64 6-bit words into 64 32-bit
data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917
- Multicarrier communications system for
transmitting modulated signals from single
transmitter
[NASA-CASE-NPO-11548] c07 N73-26118
- Synchronized digital communication system
[NASA-CASE-XNP-03623] c09 N73-28084
- Coherent receiver employing nonlinear coherence
detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523
- Pseudo-noise test set for communication system
evaluation --- test signals
[NASA-CASE-MPS-22671-1] c35 N75-21582
- Modulator for tone and binary signals --- phase
of modulation of tone and binary signals on
carrier waves in communication systems
[NASA-CASE-GSC-11743-1] c32 N75-24981
- Receiving and tracking phase modulated signals
[NASA-CASE-MSC-16170-1] c32 N77-12248
- Secure communication system
[NASA-CASE-MSC-16462-1] c32 N78-25274
- TELEMETRY**
- Fabrication of pressure-telemetry transducers
[NASA-CASE-XNP-09752] c14 N69-21541
- Telemetry data unit to form multibit words for
use between demodulator and computer
[NASA-CASE-XNP-09225] c09 N69-24333
- Development of telemetry system for position
location and data acquisition
[NASA-CASE-GSC-10083-1] c30 N71-16090
- Telespectrograph for analyzing upper atmosphere
by tracking bodies reentering atmosphere at
high velocities
[NASA-CASE-XLA-03273] c14 N71-18699

TELEOPERATORS

SUBJECT INDEX

Digitally controlled frequency synthesizer for pulse frequency modulation telemetry systems
[NASA-CASE-XGS-02317] c09 N71-23525

Time division multiplexed telemetry transmitting system controlled by programmed memory
[NASA-CASE-GSC-10131-1] c07 N71-24624

Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
[NASA-CASE-NPO-10649] c07 N71-24840

System designed to reduce time required for obtaining synchronization in data communication with spacecraft utilizing pseudonoise codes
[NASA-CASE-NPO-10214] c10 N71-26577

Zero power telemetry actuated switch for biomedical equipment
[NASA-CASE-ARC-10105] c09 N72-17153

Development and characteristics of telemetry system using computer-accessed circuits and remotely controlled from ground station
[NASA-CASE-NPO-11358] c07 N72-25172

Control and information system for digital telemetry data using analog converter to digitize sensed parameter values
[NASA-CASE-NPO-11016] c08 N72-31226

Characteristics of two channel telemetry system with two data rate channels for high and low data rate communication
[NASA-CASE-NPO-11572] c07 N73-16121

Improved phase lock loop for receiver in multichannel telemetry system with suppressed carrier
[NASA-CASE-NPO-11593-1] c07 N73-28012

Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245

TELEOPERATORS

Cooperative multiaxis sensor for teleoperation of article manipulating apparatus
[NASA-CASE-NPO-13386-1] c54 N75-27758

TELEPHONY

Digital communication system
[NASA-CASE-MSC-13912-1] c32 N74-30524

TELESCOPES

Pneumatic control of telescopic mirror support system
[NASA-CASE-XLA-03271] c11 N69-24321

Tracking mount for laser telescope employed in tracking large rockets and space vehicles to give information regarding azimuth and elevation
[NASA-CASE-MFS-14017] c14 N71-26627

Development of reflector system for application to line-of-sight pointing and tracking telescopes
[NASA-CASE-NPO-10468] c23 N71-33229

Design and development of light sensing device for controlling orientation of object relative to sun or other light source
[NASA-CASE-NPO-11201] c14 N72-27409

Borescope with adjustable hinged telescoping optical system
[NASA-CASE-MFS-15162] c14 N72-32452

Ritchey-Chretien telescope responsive to images located off telescope optical axis
[NASA-CASE-GSC-11487-1] c14 N73-30393

Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123

TELETYPEWRITER SYSTEMS

Teletypewriter video communication system and apparatus
[NASA-CASE-XNP-06611] c07 N71-26102

TELEVISION CAMERAS

Electrically operated rotary shutter for television camera aboard spacecraft
[NASA-CASE-XNP-00637] c14 N70-40273

TV camera output signal control system for digital spacecraft communication
[NASA-CASE-XNP-01472] c14 N70-41807

Solid state television camera system consisting of monolithic semiconductor mosaic sensor and molecular digital readout systems
[NASA-CASE-XNP-06092] c07 N71-24612

Color television system for allowing monochrome television camera to produce color pictures
[NASA-CASE-MSC-12146-1] c07 N72-17109

TV fatigue crack monitoring system
[NASA-CASE-LAB-11490-1] c39 N78-16387

Optical conversion method --- for spacecraft television

[NASA-CASE-MSC-12618-1] c74 N78-17865

TELEVISION EQUIPMENT

Conversion system for transforming slow scan rate of Apollo TV camera on moon to fast scan of commercial TV
[NASA-CASE-XHS-07168] c07 N71-11300

Automatic closed circuit television arc guidance control for welding joints
[NASA-CASE-NPS-13046] c07 N71-19433

Color television system utilizing single gun current sensitive color cathode ray tube
[NASA-CASE-ERC-10098] c09 N71-28618

Television multiplexing system, using single crystal controlled clock for signal synchronization
[NASA-CASE-KSC-10654-1] c07 N73-30115

Rotating raster generator
[NASA-CASE-PRC-10071-1] c32 N74-20813

Auditory display for the blind
[NASA-CASE-HQN-10832-1] c71 N74-21014

Spacecraft docking and alignment system --- using television camera system
[NASA-CASE-MSC-12559-1] c18 N76-14186

System for producing chroma signals
[NASA-CASE-MSC-14683-1] c74 N77-18893

TELEVISION RECEIVERS

Improvements in receiver of narrow bandwidth television system
[NASA-CASE-XMS-06740-1] c07 N71-26579

TELEVISION SYSTEMS

Electron beam scanning system for improved image definition and reduced power requirements for video signal transmission
[NASA-CASE-ERC-10552] c09 N71-12539

Development and characteristics of burst synchronization detection system
[NASA-CASE-XMS-05605-1] c10 N71-19468

Improvements in receiver of narrow bandwidth television system
[NASA-CASE-XMS-06740-1] c07 N71-26579

Stereoscopic television system, including projecting pair of binocular images
[NASA-CASE-ARC-10160-1] c23 N72-27728

TELEVISION TRANSMISSION

Television simulation for aircraft and space flight
[NASA-CASE-XPR-03107] c09 N71-19449

Automatic frequency control for FM transmitter
[NASA-CASE-MFS-21540-1] c32 N74-19790

Television noise reduction device
[NASA-CASE-MSC-12607-1] c32 N75-21485

TELLURIUM

Targets for producing high purity I-123
[NASA-CASE-LEW-10518-3] c25 N78-27226

TEMPERATURE

Fluorinated esters of polycarboxylic acid and lubricating compositions for use at extreme temperature
[NASA-CASE-MFS-21040-1] c06 N73-30098

TEMPERATURE COMPENSATION

Temperature compensated solid state differential amplifier with application in bioinstrumentation circuits
[NASA-CASE-XAC-00435] c09 N70-35440

Variable frequency magnetic coupled multivibrator with temperature compensated frequency control circuit
[NASA-CASE-XGS-00458] c09 N70-38604

Matched thermistors for microwave power meters with compensation for temperature changes
[NASA-CASE-NPO-10348] c10 N71-12554

Development of temperature compensated thrust measuring gage for measuring forces as function of time in environment with varying temperature
[NASA-CASE-XGS-02319] c14 N71-22965

Variable frequency subcarrier oscillator with temperature compensation
[NASA-CASE-XNP-03916] c09 N71-28810

Omnidirectional liquid filled accelerometer design with liquid and housing temperature compensation
[NASA-CASE-HQN-10780] c14 N71-30265

Development of thermal compensating structure which maintains uniform length with changes in temperature
[NASA-CASE-MFS-20433] c15 N72-28496

Development of temperature compensated light source with components and circuitry for

SUBJECT INDEX

TEMPERATURE MEASUREMENT

- maintaining luminous intensity independent of temperature variations
[NASA-CASE-ARC-10467-1] c09 N73-14214
- Opto-mechanical subsystem with temperature compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366
- Temperature compensated current source
[NASA-CASE-MSC-11235] c33 N78-17294
- TEMPERATURE CONTROL**
- Method and apparatus using temperature control for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343
- Ultraviolet radiation resistant alkali-metal silicate coatings for temperature control of spacecraft
[NASA-CASE-XGS-04119] c18 N69-39979
- Passive thermal control coating on aluminum foil laminate for inflatable spacecraft surfaces
[NASA-CASE-XLA-01291] c33 N70-36617
- Thermal switch for transferring excess heat from one region to another heat dissipating one
[NASA-CASE-INP-00463] c33 N70-36847
- Sandwich panel structure for removing heat from shield between hot and cold areas
[NASA-CASE-XLA-00349] c33 N70-37979
- Device for adding water to high velocity exhaust jets to reduce velocity, noise, and temperature
[NASA-CASE-INP-01813] c28 N70-41582
- Modifying existing solar cells for temperature control
[NASA-CASE-NPO-10109] c03 N71-11049
- Temperature sensor warning system for pneumatic tires of aircraft and ground vehicles
[NASA-CASE-XLA-01926] c14 N71-15620
- Intermittent type silica gel adsorption refrigerator for providing temperature control for spacecraft components
[NASA-CASE-INP-00920] c15 N71-15906
- Using heat control unit to preheat circulating fluid
[NASA-CASE-INP-04237] c33 N71-16278
- Mounting apparatus for temperature control system
[NASA-CASE-NPO-10138] c33 N71-16357
- Design and development of device for cooling inner conductor of coaxial cable
[NASA-CASE-INP-09775] c09 N71-20445
- Thermal control wall panel with application to spacecraft cabins
[NASA-CASE-XLA-01243] c33 N71-22792
- Development and characteristics of thermal sensitive panel for controlling ratio of solar absorptivity to surface emissivity for space vehicle temperature control
[NASA-CASE-XLA-07728] c33 N71-22890
- Method and apparatus for adjusting thermal conductance in electronic components for space use
[NASA-CASE-INP-05524] c33 N71-24876
- Device for rapid adjustment and maintenance of temperature in electronic components
[NASA-CASE-INP-02792] c14 N71-28958
- Automatic control device for regulating inlet water temperature of liquid cooled spacesuit
[NASA-CASE-MSC-13917-1] c05 N72-15098
- Development of method for controlling vapor content of gas
[NASA-CASE-NPO-10633] c03 N72-28025
- Atomic hydrogen maser with bulb temperature control by output frequency difference signal for wall shift elimination
[NASA-CASE-BGN-10654-1] c16 N73-13489
- Design and development of thermomechanical pump for transmitting warming fluid through fluid circuit to control temperature of spacecraft instrumentation
[NASA-CASE-NPO-11417] c15 N73-24513
- Automatic temperature control for liquid cooled space suit
[NASA-CASE-ARC-10599-1] c05 N73-26071
- Temperature control system comprised of wheatstone bridge with RC circuit
[NASA-CASE-NPO-11304] c14 N73-26430
- Development and characteristics of thermal control system for maintaining constant temperature within spacecraft module with wide variations of component heat transfer
[NASA-CASE-GSC-11018-1] c31 N73-30829
- Apparatus for controlling the temperature of balloon-borne equipment
[NASA-CASE-GSC-11620-1] c34 N74-23039
- Self-regulating proportionally controlled heating apparatus and technique
[NASA-CASE-GSC-11752-1] c77 N75-20140
- Rocket chamber and method of making
[NASA-CASE-LEW-11118-2] c20 N76-14191
- Thermostatically controlled non-tracking type solar energy concentrator
[NASA-CASE-NPO-13497-1] c44 N76-14602
- Magnetic heat pumping
[NASA-CASE-LEW-12508-2] c34 N77-32435
- Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380
- Multi-chamber controllable heat pipe
[NASA-CASE-ARC-10199] c34 N78-17337
- Thermal compensator for closed-cycle helium refrigerator --- assuring constant temperature for an infrared laser diode
[NASA-CASE-GSC-12168-1] c31 N79-17029
- Low heat leak connector for cryogenic system
[NASA-CASE-XLE-02367-1] c31 N79-21225
- TEMPERATURE DISTRIBUTION**
- Oven for heat treating heat shields
[NASA-CASE-XMS-04318] c15 N69-27871
- Apparatus for supplying conditioned air at a substantially constant temperature and humidity
[NASA-CASE-GSC-12191-1] c54 N79-19688
- TEMPERATURE EFFECTS**
- Shock and vibration damping device using temperature sensitive solid amorphous polymers
[NASA-CASE-XAC-11225] c14 N69-27486
- Differential pressure cell insensitive to changes in ambient temperature and extreme overload
[NASA-CASE-XAC-00042] c14 N70-34816
- Fluid flow control valve for regulating fluids in molecular quantities
[NASA-CASE-XLE-00703] c15 N71-15967
- Describing device for changing flow rate of fluid in duct in response to change in temperature
[NASA-CASE-NFS-14259] c15 N71-19213
- Temperature sensitive magnetometer with pulsating thermally cycled magnetic core
[NASA-CASE-XAC-03740] c14 N71-26135
- Development of system with electrical properties which vary with changes in temperature for use with feedback loop in operational amplifier circuit
[NASA-CASE-MSC-13276-1] c14 N71-27058
- TEMPERATURE GRADIENTS**
- Differential thermopile for measuring cooling water temperature rise
[NASA-CASE-XAC-00812] c14 N71-15598
- Development of temperature compensated light source with components and circuitry for maintaining luminous intensity independent of temperature variations
[NASA-CASE-ARC-10467-1] c09 N73-14214
- Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article
[NASA-CASE-LAR-10489-1] c31 N74-18124
- Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019
- TEMPERATURE MEASUREMENT**
- Filter arrangement for controlling light intensity in motion picture camera used in optical pyrometry
[NASA-CASE-XLA-00062] c14 N70-33254
- Development of apparatus for measuring thermal conductivity
[NASA-CASE-XGS-01052] c14 N71-15992
- Design and characteristics of thermocouples consisting of flexible tape for improved attachment to temperature source
[NASA-CASE-INP-01659] c14 N71-23039
- Black body cavity radiometer with thermal resistance wire bridge circuit
[NASA-CASE-INP-08961] c14 N71-24809
- Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow
[NASA-CASE-LEW-10281-1] c14 N72-17327
- Development of thermocouple instrument for measuring temperature of wall heated by flowing fluid without disturbing boundary layer
[NASA-CASE-XLE-05230] c14 N72-27410

TEMPERATURE MEASURING INSTRUMENTS

SUBJECT INDEX

Thermocouple apparatus for measuring wall temperatures in regeneratively cooled rocket engines having thin walled cooling passages [NASA-CASE-XLE-05230-2] c14 N73-13417

Thermochromic compositions for detecting heat levels in electronic circuits and devices [NASA-CASE-NPO-10764-1] c14 N73-14428

Method of fabricating an article with cavities --- with thin bottom walls [NASA-CASE-LAR-10318-1] c31 N74-18089

Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel [NASA-CASE-LAR-11053-1] c25 N74-18551

Wind sensor [NASA-CASE-NPO-13462-1] c35 N76-24524

Miniature ingestible telemeter devices to measure deep-body temperature [NASA-CASE-ARC-10583-1] c22 N76-29894

TEMPERATURE MEASURING INSTRUMENTS

Temperature sensor warning system for pneumatic tires of aircraft and ground vehicles [NASA-CASE-XLA-01926] c14 N71-15620

Electric network for monitoring temperatures, detecting critical temperatures, and indicating critical time duration [NASA-CASE-XNP-01097] c10 N71-16058

Electromagnetic energy detection by thermal sensor with vibrating electrode [NASA-CASE-XAC-10768] c09 N71-18830

Input radio frequency circuit for switching type absolute temperature measuring radiometer for noise sources [NASA-CASE-EBC-11020] c14 N71-26774

High intensity radiant energy pulse source for calibrating heat transfer gages with thermoluminescent shutter activation [NASA-CASE-ABC-10178-1] c09 N72-17152

Development of flexible thermocouple in form of tape for adaptation to special temperature measuring conditions [NASA-CASE-LEW-11072-1] c14 N73-24472

Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance [NASA-CASE-LEW-12050-1] c35 N77-32454

TEMPERATURE PROBES

Thermally sensitive tuning probe for nullifying detuning effects in microwave cavity resonator of amplifier [NASA-CASE-XNP-00449] c14 N70-35220

Design, development, and characteristics of pressure and temperature sensor operating immersed in fluid flow [NASA-CASE-LEW-10281-1] c14 N72-17327

TEMPERATURE SENSORS

Miniaturized radiometer for detecting low level thermal radiation [NASA-CASE-XLA-04556] c14 N69-27489

Mounting fixture for supporting thermobulb in pipeline [NASA-CASE-NPO-10158] c33 N71-16356

Mounting apparatus for temperature control system [NASA-CASE-NPO-10138] c33 N71-16357

Heat flux sensor adapted for mounting on aircraft or spacecraft to measure aerodynamic heat flux inflow to aircraft skin [NASA-CASE-IFR-03802] c33 N71-23085

Temperature telemetric transmitter with frequency determining tank circuit for short range transmission [NASA-CASE-NPO-10649] c07 N71-24840

Black body radiometer design with temperature sensing and cavity heat source cone winding [NASA-CASE-XNP-09701] c14 N71-26475

Thin film capacitive bolometer and capacitance temperature interchange sensor [NASA-CASE-NPO-10607] c09 N71-27232

Development of thin film temperature sensor from TaO [NASA-CASE-NPO-11775] c26 N72-28761

Heat detection and compositions and devices therefor [NASA-CASE-NPO-10764-2] c35 N75-25122

TEMPLATES

Precision surface cutter for screen circuits, negatives and other microcircuits [NASA-CASE-XLA-09843] c15 N72-27485

TENSILE STRENGTH

Method for producing fiber reinforced metallic composites with high strength and elasticity over wide temperature range [NASA-CASE-XLE-00231] c17 N70-38198

Composites reinforced with short metal fibers or whiskers and having high tensile strength [NASA-CASE-XLE-00228] c17 N70-38490

Apparatus for tensile strength testing of specimen by pressurized fluid [NASA-CASE-XKS-06250] c14 N71-15600

Process for fiberizing ceramic materials with high fusion temperatures and tensile strength [NASA-CASE-XNP-00597] c18 N71-23088

Tensile strength testing device having pulley guides for exerting multiple forces on test specimen [NASA-CASE-XNP-05634] c15 N71-24834

Device for use in loading tension members --- characterized by elongated elastic body [NASA-CASE-HFS-21488-1] c14 N75-24794

TENSILE STRESS

Method for testing rocket nozzles at high tensile stress levels [NASA-CASE-NPO-10311] c31 N71-15643

Device for measuring tensile forces [NASA-CASE-HFS-21728-1] c35 N74-27865

Solid medium thermal engine [NASA-CASE-ABC-10461-1] c44 N74-33379

TENSILE TEST

Tensile strength testing device having pulley guides for exerting multiple forces on test specimen [NASA-CASE-XNP-05634] c15 N71-24834

TENSILE TESTS

Apparatus for tensile strength testing of specimen by pressurized fluid [NASA-CASE-XKS-06250] c14 N71-15600

Apparatus for measuring load on cable under static or dynamic conditions comprising pulleys pivoting structure against restraint of tension strap [NASA-CASE-XMS-04545] c15 N71-22878

Method and apparatus for remote measurement of displacement of marks on specimen undergoing tensile test [NASA-CASE-NPO-10778] c14 N72-11364

Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature [NASA-CASE-LAR-10426-1] c09 N74-19528

Method and apparatus for tensile testing of metal foil [NASA-CASE-LAR-10208-1] c35 N76-18400

Device for tensioning test specimens within an hermetically sealed chamber [NASA-CASE-HFS-23281-1] c35 N77-22450

TENSION

Meter for use in detecting tension in straps having predetermined elastic characteristics [NASA-CASE-HFS-22189-1] c35 N75-19615

TERMINAL BALLISTICS

Antiaircraft system and method employing small projectiles [NASA-CASE-FRC-11006-1] c99 N79-10995

TERMINAL GUIDANCE

Data processing and display system for terminal guidance of X-15 aircraft [NASA-CASE-IFR-00756] c02 N71-13421

Terminal guidance system --- for guiding aircraft into preselected altitude and/or heading at terminal point [NASA-CASE-FRC-10049-1] c04 N74-13420

Terminal guidance sensor system [NASA-CASE-NPO-14521-1] c54 N79-20746

TERRAIN

Vertically descending flight vehicle landing gear for rough terrain [NASA-CASE-XNP-01174] c02 N70-41589

TERRAIN ANALYSIS

Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks [NASA-CASE-NFO-13862-1] c35 N79-10391

TEST CHAMBERS

System for continuous monitoring of exhalations, weighing, and cage cleaning for animal exposed to controlled atmosphere for toxic study [NASA-CASE-XAC-05333] c11 N71-22875

SUBJECT INDEX

THERMAL CONDUCTIVITY

- Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042
- Flammability test chamber for testing materials in certain predetermined environments
[NASA-CASE-KSC-10126] c11 N71-24985
- Pressure seals suitable for use in environmental test chambers
[NASA-CASE-NPO-10796] c15 N71-27068
- Test chamber for determining decomposition and autoignition of materials used in spacecraft under controlled environmental conditions
[NASA-CASE-KSC-10198] c11 N71-28629
- Test chambers with orifice and helium mass spectrometer for detecting leak rate of encapsulated semiconductor devices
[NASA-CASE-ERC-10150] c14 N71-28992
- Method for measuring biaxial stress in a body subjected to stress inducing loads
[NASA-CASE-MPS-23299-1] c39 N77-28511
- TEST EQUIPMENT**
- Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-XMS-05454-1] c07 N71-12391
- Apparatus for tensile strength testing of specimen by pressurized fluid
[NASA-CASE-XKS-06250] c14 N71-15600
- Development of black-body source calibration furnace
[NASA-CASE-XLE-01399] c33 N71-15625
- Design and characteristics of thermocouples consisting of flexible tape for improved attachment to temperature source
[NASA-CASE-XNP-01659] c14 N71-23039
- Automatic controlled thermal fatigue testing apparatus
[NASA-CASE-XLA-02059] c33 N71-24276
- Development and characteristics of electric circuitry for detecting electrical pulses rise time and amplitude
[NASA-CASE-XNP-08804] c09 N71-24717
- Automated ball rebound resilience test equipment for determining viscoelastic properties of polymers
[NASA-CASE-XLA-08254] c14 N71-26161
- Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292
- Acoustic vibration test apparatus for wiring harnesses
[NASA-CASE-MSC-15158-1] c14 N72-17325
- Design and development of two types of atmosphere sampling chambers
[NASA-CASE-NPO-11373] c13 N72-25323
- Development of apparatus for testing burning rate and flammability of materials
[NASA-CASE-XMS-09690] c33 N72-25913
- Development of apparatus for detonating explosive devices in order to determine forces generated and detonation propagation rate
[NASA-CASE-LAR-10800-1] c33 N72-27959
- Equipment for vibration testing of assemblies, components, and other articles
[NASA-CASE-GSC-11302-1] c14 N73-13416
- Design and development of test stand system for supporting test items in vacuum chamber
[NASA-CASE-MPS-21362] c11 N73-20267
- Development and characteristics of apparatus for measuring intensity of electric field in atmosphere
[NASA-CASE-KSC-10730-1] c14 N73-32318
- Test equipment to prevent buckling of small diameter specimens during compression tests
[NASA-CASE-LAR-10440-1] c14 N73-32323
- Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955
- Anti-buckling fatigue test assembly --- for subjecting metal specimen to tensile and compressive loads at constant temperature
[NASA-CASE-LAR-10426-1] c09 N74-19528
- Method and apparatus for checking fire detectors
[NASA-CASE-GSC-11600-1] c35 N74-21019
- Battery testing device --- for testing cells of multiple-cell battery
[NASA-CASE-MPS-20761-1] c44 N74-27519
- Signal conditioner test set
[NASA-CASE-KSC-10750-1] c35 N75-12270
- Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509
- High temperature strain gage calibration fixture
[NASA-CASE-LAR-11500-1] c35 N76-24523
- Method of and means for testing a tape record/playback system
[NASA-CASE-MPS-22671-2] c35 N77-17426
- Method of and means for testing a glancing-incidence mirror system of an X-ray telescope
[NASA-CASE-MPS-22409-2] c74 N78-15880
- TEST FACILITIES**
- Electric propulsion engine test chamber
[NASA-CASE-XLE-00252] c11 N70-34844
- Test apparatus for determining mechanical properties of refractory materials at high temperatures in vacuum or inert atmospheres
[NASA-CASE-XLE-00335] c14 N70-35368
- Gas analyzer for bi-gaseous mixtures suitable for use in test facilities
[NASA-CASE-XLA-01131] c14 N71-10774
- Design and characteristics of device for launching models in wind tunnels without disturbance of air flow
[NASA-CASE-XNP-03578] c11 N71-23030
- Design, development, and operation of shock tube with bypass piston tunnel
[NASA-CASE-NPO-12109] c11 N72-22245
- TEST STANDS**
- Automatic balancing device for use on frictionless supported attitude-controlled test platforms
[NASA-CASE-LAR-10774] c10 N71-13545
- Micro-pound extended range thrust stand for small rocket engines
[NASA-CASE-GSC-10710-1] c28 N71-27094
- TETHERED SATELLITES**
- Tetherline system for orbiting satellites
[NASA-CASE-MPS-23564-1] c15 N78-25119
- TETHERING**
- Force separation rigid tethering device using cables
[NASA-CASE-XLA-02332] c32 N71-17609
- Space expandable tether device for use as passageway between two docked spacecraft
[NASA-CASE-XMS-10993] c15 N71-28936
- TETHERLINES**
- Flexible cable that can be made rigid
[NASA-CASE-MSC-13512-1] c15 N72-22485
- Tetherline system for orbiting satellites
[NASA-CASE-MPS-23564-1] c15 N78-25119
- TETRAPHENYLS**
- Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-10364] c06 N71-27363
- TEXTILES**
- Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
- THERMAL ABSORPTION**
- Development and characteristics of calorimeter with integral heat sink for maintenance of constant temperature
[NASA-CASE-XNP-04208] c33 N71-29051
- Solar pond
[NASA-CASE-NPO-13581-2] c44 N78-31525
- THERMAL CONDUCTIVITY**
- Measuring conductive heat flow and thermal conductivity of laminar gas stream in cylindrical plug to simulate atmospheric reentry
[NASA-CASE-XLE-00266] c14 N70-34156
- Development of apparatus for measuring thermal conductivity
[NASA-CASE-XGS-01052] c14 N71-15992
- Heated element sensor for fluid flow detection in thermal conductive conduit with adaptive means to determine flow rate and direction
[NASA-CASE-MSC-12084-1] c12 N71-17569
- Method and apparatus for adjusting thermal conductance in electronic components for space use
[NASA-CASE-XNP-05524] c33 N71-24876
- Thermally conductive polymer for potting electrical components
[NASA-CASE-GSC-11304-1] c06 N72-21105
- Electrostatically controlled heat transfer system for conducting thermal energy

THERMAL CONDUCTORS

[NASA-CASE-NPO-11942-1] c33 N73-32818
Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355
Support assembly for cryogenically coolable
low-noise choked waveguide
[NASA-CASE-NPO-14253-1] c31 N79-10246

THERMAL CONDUCTORS
Thermal conductive, electrically insulated
cleavable adhesive connection between
electronic module and heat sink
[NASA-CASE-XMS-02087] c09 N70-41717
Solar energy absorber
[NASA-CASE-MPS-22743-1] c44 N76-22657

THERMAL CONTROL COATINGS
Low concentration alkaline solution treatment of
aluminum with metal phosphate surface coatings
to improve chemical bonding and reduce coating
weight
[NASA-CASE-XLA-01995] c18 N71-23047
Binder stabilized zinc oxide pigmented coating
for spacecraft thermal control
[NASA-CASE-XMF-07770-2] c18 N71-26772
Inorganic thermal control and solar reflector
coatings
[NASA-CASE-MPS-20011] c18 N72-22566
Mercaptan terminated polymer containing sulfonic
acid salts of nitrosubstituted aromatic amines
for heat and moisture resistant coatings
[NASA-CASE-ARC-10325] c06 N72-25147
Refractory porcelain enamel passive control
coating for high temperature alloys
[NASA-CASE-MPS-22324-1] c27 N75-27160
Particulate and solar radiation stable coating
for spacecraft
[NASA-CASE-LAR-10805-2] c34 N77-18382
Method of preparing zinc orthotitanate pigment
[NASA-CASE-MPS-23345-1] c27 N77-30237
Intumescent coatings containing
4,4'-dinitrosulfanilide
[NASA-CASE-ARC-11042-1] c24 N78-14096
Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355
High temperature resistant cermet and ceramic
compositions --- for thermal resistant
insulators and refractory coatings
[NASA-CASE-NPO-13690-1] c27 N78-19302
Intumescent-ablator coatings using endothermic
fillers
[NASA-CASE-ARC-11043-1] c24 N78-27180
Lightweight electrically-powered flexible
thermal laminate --- made of metal and
nonconductive yarns
[NASA-CASE-MSC-12662-1] c33 N79-12331
Electrically conductive thermal control coatings
[NASA-CASE-GSC-12207-1] c24 N79-14156

THERMAL DEGRADATION
Use of silicon controlled rectifier shorting
circuit to protect thermoelectric generator
source from thermal destruction
[NASA-CASE-XGS-04808] c03 N69-25146
Electrical failure detector in solid rocket
propellant motor insulation against thermal
degradation by fuel grain
[NASA-CASE-XMF-03968] c14 N71-27186

THERMAL DIFFUSION
Double-beam optical method and apparatus for
measuring thermal diffusivity and other
molecular dynamic processes in utilizing the
transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683

THERMAL EMISSION
Electromagnetic radiation energy arrangement ---
coatings for solar energy absorption and
infrared reflection
[NASA-CASE-WOO-00428-1] c32 N79-19186

THERMAL ENERGY
Direct conversion of thermal energy into
electrical energy using crossed electric and
magnetic fields
[NASA-CASE-XLE-00212] c03 N70-34134
Concentrator device for controlling direction of
solar energy onto energy converters
[NASA-CASE-XLE-01716] c09 N70-40234
Storage stable, thermally activated foaming
compositions for erecting and rigidizing
mechanisms of thin sheet solar collectors
[NASA-CASE-LAR-10373-1] c18 N71-26155
Gaseous core diffusion nuclear reactor for
thermal energy generation

SUBJECT INDEX

[NASA-CASE-LEW-10250-1] c22 N71-28759
Electrostatically controlled heat transfer
system for conducting thermal energy
[NASA-CASE-NPO-11942-1] c33 N73-32818
Solid medium thermal engine
[NASA-CASE-ARC-10461-1] c44 N74-33379
Panel for selectively absorbing solar thermal
energy and the method of producing said panel
[NASA-CASE-MPS-22562-1] c44 N76-14595
Thermal energy storage system --- operating on
superheating of liquids
[NASA-CASE-MPS-23167-1] c44 N76-31667
Low to high temperature energy conversion system
[NASA-CASE-NPO-13510-1] c44 N77-32581
Thermal energy transformer
[NASA-CASE-NPO-14058-1] c44 N79-18443

THERMAL EXPANSION
Gas valve operated by thermally expanding and
contracting device
[NASA-CASE-XLE-00815] c15 N70-35407
Adjustable rigid mount for trihedral mirror
formed of alloy with small coefficient of
thermal expansion supporting screws and
spring-biased plates
[NASA-CASE-XMF-08907] c23 N71-29123
Application of spiral, bimetallic strip to
create circular motion on mechanical shaft by
changing strip temperature
[NASA-CASE-NPO-11283] c09 N72-25260
Glass-to-metal seals comprising relatively high
expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063

THERMAL FATIGUE
Automatic controlled thermal fatigue testing
apparatus
[NASA-CASE-XLA-02059] c33 N71-24276

THERMAL INSULATION
Low thermal loss piping arrangement for moving
cryogenic media through double chamber structure
[NASA-CASE-XMF-08882] c15 N69-39935
Insulating system for receptacles of liquefied
gases using wire cloth for forming frost layer
[NASA-CASE-XMF-00341] c15 N70-33323
Unfired-ceramic, highly reflective composite
insulation for large launch vehicles
[NASA-CASE-XMF-01030] c18 N70-41583
Carbon dioxide purge systems to prevent
condensation in spaces between cryogenic fuel
tanks and hypersonic vehicle skin
[NASA-CASE-XLA-01967] c31 N70-42015
Preparation and characteristics of lightweight
refractory insulation
[NASA-CASE-XMF-05279] c18 N71-16124
Development of thermal insulation system for
wing and control surfaces of hypersonic
aircraft and reentry vehicles
[NASA-CASE-XLA-00892] c33 N71-17897
Prefabricated multilayered self-evacuating
insulation panels using gas with low vapor
pressure at cryogenic temperatures for
application to storage of cryogens
[NASA-CASE-XLE-04222] c23 N71-22881
Light weight plastic foam thermal insulation for
cryogenic storage
[NASA-CASE-XLE-02647] c18 N71-23658
Development of foam insulation for filament
wound cryogenic storage tank
[NASA-CASE-XLE-03803] c15 N71-23816
Multilayer insulation panels for cryogenic
liquid containers
[NASA-CASE-MPS-14023] c33 N71-25351
Double-wall isothermal cylinder containing heat
transfer fluid thermal reservoir as spacecraft
insulation cover
[NASA-CASE-MPS-20355] c33 N71-25353
Structure of fabric layers for micrometeoroid
protection garment with capability for
eliminating heat shorts for use in
manufacturing space suits
[NASA-CASE-MSC-12109] c18 N71-26285
Foam insulation thickness measuring and
injection device for spacecraft applications
[NASA-CASE-MPS-20261] c14 N71-27005
Development of thermal insulation material for
insulating liquid hydrogen tanks in spacecraft
[NASA-CASE-XMF-05046] c33 N71-28892
Para-benzoquinone dioxime and concentrated
mineral acid processed to yield intumescent or
fire resistant, heat insulating materials

SUBJECT INDEX

THERMAL STABILITY

[NASA-CASE-ARC-10304-1] c18 N73-26572
Development and characteristics of thermal control system for maintaining constant temperature within spacecraft module with wide variations of component heat transfer
[NASA-CASE-GSC-11018-1] c31 N73-30829
Heater-mixer for stored fluids
[NASA-CASE-ARC-10442-1] c35 N74-15093
Intumescent composition, foamed product prepared therewith and process for making same
[NASA-CASE-ARC-10304-2] c27 N74-27037
High current electrical lead --- for thermionic converters
[NASA-CASE-LEW-10950-1] c33 N74-27683
Structural heat pipe --- for spacecraft wall thermal insulation system
[NASA-CASE-GSC-11619-1] c34 N75-12222
Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671
Strain arrestor plate for fused silica tile --- bonding of thermal insulation to metallic plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264
Ceramic fiber insulating material and methods of producing same --- product development of foams for thermal insulation
[NASA-CASE-MSC-14795-1] c27 N76-15314
Auger attachment method for insulation --- of spacecraft
[NASA-CASE-MSC-12615-1] c37 N76-19437
Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423
Ceramic fiber insulating material and method of producing same --- aircraft construction materials
[NASA-CASE-MSC-14795-2] c24 N78-25138
Flexible pile thermal barrier insulator
[NASA-CASE-MSC-19568-1] c34 N78-25350
Thermal insulation attaching means --- adhesive bonding of felt vibration insulators under ceramic tiles
[NASA-CASE-MSC-12619-2] c27 N79-12221
A method and technique for installing light-weight fragile, high-temperature fiber insulation --- sealing recoverable spacecraft
[NASA-CASE-MSC-16938-1] c24 N79-16923
THERMAL PLASMAS
Apparatus for producing monochromatic light from continuous plasma source
[NASA-CASE-IXP-04167-2] c25 N72-24753
THERMAL PROTECTION
Thermoprotective device for balances
[NASA-CASE-IAC-00648] c14 N70-40400
Design, development, and characteristics of ablation structures
[NASA-CASE-IHS-01816] c33 N71-15623
Development of spacecraft radiator cover
[NASA-CASE-MSC-12049] c31 N71-16080
Characteristics of foamed-in-place ceramic refractory insulating material and method of fabrication
[NASA-CASE-IGS-02435] c18 N71-22998
Unfired ceramic insulation for protection from radiant heating environments
[NASA-CASE-MPS-14253] c33 N71-24858
Development of solid state polymer coating for obtaining thermal balance in spacecraft components
[NASA-CASE-XLA-01745] c33 N71-28903
Anodizing method for providing metal surfaces with temperature reducing coatings against flames
[NASA-CASE-XLE-00035] c33 N71-29151
Ablative heat shield for protection from aerodynamic heating of reentry spacecraft
[NASA-CASE-MSC-12143-1] c33 N72-17947
Lightweight fire resistant plastic foam for thermal protection of reentry vehicles and aircraft structures
[NASA-CASE-ARC-10180-1] c28 N72-20767
Flexible fire retardant polyisocyanate modified neoprene foam --- for thermal protective devices
[NASA-CASE-ARC-10180-1] c27 N74-12814
Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671
Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383
Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N78-32260

THERMAL RADIATION

Miniaturized radiometer for detecting low level thermal radiation
[NASA-CASE-XLA-04556] c14 N69-27484
Temperature sensitive capacitor device for detecting very low intensity infrared radiation
[NASA-CASE-IXP-09750] c14 N69-39937
High temperature source of thermal radiation
[NASA-CASE-XLE-00490] c33 N70-34545
Development and characteristics of thermal radiation shielding of refractory metal foil used for induction furnace
[NASA-CASE-XLE-03432] c33 N71-24145
Black body cavity radiometer with thermal resistance wire bridge circuit
[NASA-CASE-IXP-08961] c14 N71-24809
Development of method for protecting large and oddly shaped areas from radiant and convective heat
[NASA-CASE-IXP-01310] c33 N71-28852

THERMAL REACTORS

Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQN-10841-1] c73 N78-19920

THERMAL RESISTANCE

Single electrical circuit component combining diode, fuse, and blown indicator with elongated tube of heat resistant transparent material
[NASA-CASE-IKS-03381] c09 N71-22796
Polyimide foam for the thermal insulation and fire protection
[NASA-CASE-ARC-10464-1] c27 N74-12812
Dual measurement ablation sensor
[NASA-CASE-LAR-10105-1] c34 N74-15652
Self-regulating proportionally controlled heating apparatus and technique
[NASA-CASE-GSC-11752-1] c77 N75-20140
Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-2] c27 N78-25216
Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-3] c27 N78-25217
Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N78-32256
Ambient cure polyimide foams --- thermal resistant foams
[NASA-CASE-ARC-11170-1] c27 N79-11215

THERMAL SHOCK

Development of equipment for measuring thermal shock resistance of thin discs of material
[NASA-CASE-XLE-02024] c14 N71-22964
Thermal shock resistant hafnia ceramic materials
[NASA-CASE-LAR-10894-1] c18 N73-14584
Thermal shock and erosion resistant tantalum carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206

THERMAL SIMULATION

Simulating operation of thermopile vacuum gage tube at high and low pressures
[NASA-CASE-XLA-02758] c14 N71-18481

THERMAL STABILITY

Bonded solid lubricant coatings of calcium fluoride and binder for high temperature stability
[NASA-CASE-IHS-00259] c18 N70-36400
Portable environmental control and life support system for astronaut in and out of spacecraft
[NASA-CASE-IHS-09632-1] c05 N71-11203
Chemical synthesis of thermally stable organometallic polymers with divalent metal ion and tetraphenylphosphonitrilic units
[NASA-CASE-HQN-10364] c06 N71-27363
Cermet for nuclear fuel constructed by pressing metal coated ceramic particles in die at temperature to cause bonding of metal coatings, and tested for thermal stability
[NASA-CASE-LEW-10219-1] c18 N71-28729
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315
Sound-suppressing structure with thermal relief
[NASA-CASE-LEW-12658-1] c71 N79-14871
Infusible silazane polymer and process for producing same --- protective coatings

THERMAL STRESSES

SUBJECT INDEX

[NASA-CASE-XNP-02526-1] c27 N79-21190
THERMAL STRESSES
 Strain gage for detecting and measuring mechanical strain in thermally strained specimens
 [NASA-CASE-FRC-10053] c14 N70-35587
 Multilegged support system for wind tunnel test models subjected to thermal dynamic loading
 [NASA-CASE-XLA-01326] c11 N71-21481
 Development of device for simulating cyclic thermal loading of flexible materials by application of mechanical stresses and deformations
 [NASA-CASE-LAR-10270-1] c32 N72-25877
 Method for alleviating thermal stress damage in laminates
 [NASA-CASE-LEW-12493-1] c24 N78-22163
 Apparatus and method for reducing thermal stress in a turbine rotor
 [NASA-CASE-LEW-12232-1] c07 N79-10057
THERMIONIC CATHODES
 Thermionic cesium diode converter with cavity emitters
 [NASA-CASE-NPO-10412] c09 N71-28421
THERMIONIC CONVERTERS
 Vacuum thermionic converter with short-circuited triodes and increased electron transmission and conversion efficiency
 [NASA-CASE-XLE-01015] c03 N69-39898
 Thermionic converter for converting heat energy directly into electrical energy
 [NASA-CASE-XLE-01903] c22 N71-23599
 Thermionic cesium diode converter with cavity emitters
 [NASA-CASE-NPO-10412] c09 N71-28421
 Development and characteristics of solar cells with phosphors in cover glass to improve response to solar ultraviolet radiation
 [NASA-CASE-ABC-10050] c03 N71-33409
 Reactor heated in-core diodes for energy conversion
 [NASA-CASE-NPO-10542] c09 N72-27228
 High current electrical lead --- for thermionic converters
 [NASA-CASE-LEW-10950-1] c33 N74-27683
 Electric power generation system directory from laser power
 [NASA-CASE-NPO-13308-1] c36 N75-30524
 Nuclear thermionic converter --- tungsten-thorium oxide rods
 [NASA-CASE-NPO-13121-1] c73 N77-18891
 High temperature resistant cermet and ceramic compositions
 [NASA-CASE-NPO-13690-3] c27 N78-25219
 Cesium thermionic converters having improved electrodes
 [NASA-CASE-LEW-12038-3] c44 N78-25555
THERMIONIC DIODES
 Electric power system utilizing thermionic plasma diodes in parallel and heat pipes as cathodes
 [NASA-CASE-XNP-05843] c03 N71-11055
 Thermionic diode switch for use in high temperature region to chop current from dc source
 [NASA-CASE-NPO-10404] c03 N71-12255
 Micromicroampere current measuring circuit, with two subminiature thermionic diodes with filament cathodes
 [NASA-CASE-XNP-00384] c09 N71-13530
 Electric power system with thermionic diodes and circulatory liquid metal coolant lines
 [NASA-CASE-NFS-14114] c33 N71-27862
 Reactor heated in-core diodes for energy conversion
 [NASA-CASE-NPO-10542] c09 N72-27228
THERMIONIC EMITTERS
 Oxygen-doped tantalum emitter for thermionic devices such as cesium vapor diodes
 [NASA-CASE-NPO-11138] c03 N70-34646
THERMIONIC POWER GENERATION
 Control for nuclear thermionic power source
 [NASA-CASE-NPO-13114-2] c73 N78-28913
THERMISTORS
 Matched thermistors for microwave power meters with compensation for temperature changes
 [NASA-CASE-NPO-10348] c10 N71-12554
 Thermistor holder for skin temperature measurements

[NASA-CASE-ABC-10855-1] c52 N77-10780
THERMOCROMATIC MATERIALS
 Thermochromic compositions for detecting heat levels in electronic circuits and devices
 [NASA-CASE-NPO-10764-1] c14 N73-14428
 Heat detection and compositions and devices therefor
 [NASA-CASE-NPO-10764-2] c35 N75-25122
THERMOCOUPLE PYROMETERS
 Dual measurement ablation sensor
 [NASA-CASE-LAR-10105-1] c34 N74-15652
THERMOCOUPLES
 Heat flux sensor assembly with proviso for heat shield to reduce radiative transfer between sensor elements
 [NASA-CASE-XMS-05909-1] c14 N69-27459
 Gas cooled high temperature thermocouple
 [NASA-CASE-XLE-09475-1] c33 N71-15568
 Control of fusion welding through use of thermocouple wire
 [NASA-CASE-NFS-06074] c15 N71-20393
 Heat sensing instrument, using thermocouple junction connected under heavy conducting material
 [NASA-CASE-XLA-01551] c14 N71-22989
 Design and characteristics of thermocouples consisting of flexible tape for improved attachment to temperature source
 [NASA-CASE-XNP-01659] c14 N71-23039
 Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
 [NASA-CASE-NPO-10691] c14 N71-26199
 Development of thermocouple instrument for measuring temperature of wall heated by flowing fluid without disturbing boundary layer
 [NASA-CASE-XLE-05230] c14 N72-27410
 Thermocouple apparatus for measuring wall temperatures in regeneratively cooled rocket engines having thin walled cooling passages
 [NASA-CASE-XLE-05230-2] c14 N73-13417
 Electrical resistance butt welder for welding fine gauge tungsten/rhenium thermocouple wire
 [NASA-CASE-LAR-10103-1] c15 N73-14468
 Development of flexible thermocouple in form of tape for adaptation to special temperature measuring conditions
 [NASA-CASE-LEW-11072-1] c14 N73-24472
 Thermocouple tape --- developed from thermoelectrically different metals
 [NASA-CASE-LEW-11072-2] c35 N76-15434
 Thermocouple installation
 [NASA-CASE-NPO-13540-1] c35 N77-14409
 Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance
 [NASA-CASE-LEW-12050-1] c35 N77-32454
 Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance
 [NASA-CASE-LEW-12174-2] c35 N79-14346
THERMODYNAMIC PROPERTIES
 Development of equipment for measuring thermal shock resistance of thin discs of material
 [NASA-CASE-XLE-02024] c14 N71-22964
 Characteristics of foamed-in-place ceramic refractory insulating material and method of fabrication
 [NASA-CASE-XGS-02435] c18 N71-22998
 Operating properties of superconducting magnet in vacuum environment
 [NASA-CASE-XNP-06503] c23 N71-29049
 Cobalt-tungsten alloys with superior strength at elevated temperatures
 [NASA-CASE-LEW-10436-1] c17 N73-32415
THERMOELECTRIC GENERATORS
 Use of silicon controlled rectifier shorting circuit to protect thermoelectric generator source from thermal destruction
 [NASA-CASE-XGS-04808] c03 N69-25146
 Procedure for segmenting lead telluride and silicon germanium thermoelectric elements to obtain composite elements effective over wide temperature range
 [NASA-CASE-XGS-05718] c26 N71-16037
 Low weight, integrated thermoelectric generator/antenna combination for spacecraft
 [NASA-CASE-XER-09521] c09 N72-12136
 Thermally cascaded thermoelectric generator with radioisotopic heat source

SUBJECT INDEX

THIN FILMS

- [NASA-CASE-NPO-10753] c03 N72-26031
- THERMOELECTRIC MATERIALS**
- Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes [NASA-CASE-XGS-04554] c15 N69-39786
- Procedure for segmenting lead telluride and silicon germanium thermoelectric elements to obtain composite elements effective over wide temperature range [NASA-CASE-XGS-05718] c26 N71-16037
- THERMOELECTRIC POWER GENERATION**
- Thermoelectric power conversion by liquid metal flowing through magnetic field [NASA-CASE-INP-00644] c03 N70-36803
- Operation method for combined electrolysis device and fuel cell using molten salt to produce power by thermoelectric regeneration mechanism [NASA-CASE-XLE-01645] c03 N71-20904
- Thermoelectric power system --- for spacecraft [NASA-CASE-MFS-22002-1] c44 N76-16612
- THERMOELECTRICITY**
- Development of flexible thermocouple in form of tape for adaptation to special temperature measuring conditions [NASA-CASE-LEW-11072-1] c14 N73-24472
- Device for measuring thermoelectric properties of materials under high pressure [NASA-CASE-NPO-11749] c14 N73-28486
- THERMOLUMINESCENCE**
- Method for detecting oxygen in gas by thermoluminescence [NASA-CASE-LAR-10668-1] c06 N73-16106
- Thermoluminescent aerosol analysis [NASA-CASE-LAR-12046-1] c25 N78-15210
- THERMOMAGNETIC EFFECTS**
- Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control [NASA-CASE-NPO-11317-2] c36 N74-13205
- Thermomagnetic recording and magnetic-optic playback system [NASA-CASE-NPO-10872-1] c35 N79-16246
- THERMOMETERS**
- Platinum resistance thermometer circuit [NASA-CASE-MSC-12327-1] c35 N77-27368
- THERMOPHYSICAL PROPERTIES**
- Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel [NASA-CASE-LAR-11053-1] c25 N74-18551
- Apparatus for determining thermophysical properties of test specimens [NASA-CASE-LAR-11883-1] c09 N77-27131
- THERMOPILES**
- Differential thermopile for measuring cooling water temperature rise [NASA-CASE-XAC-00812] c14 N71-15598
- Horizon sensor design with digital sampling of spaced radiation-compensated thermopile infrared detectors [NASA-CASE-INP-06957] c14 N71-21088
- Development of thermopile with sensor surface to receive radiant energy and to provide measurement of energy quantity [NASA-CASE-NPO-11493] c14 N73-12447
- THERMOPLASTIC RESINS**
- Formulated plastic separators for soluble electrode cells [NASA-CASE-LEW-12358-2] c25 N78-25149
- Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge [NASA-CASE-ARC-11057-1] c27 N78-31233
- Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil [NASA-CASE-NPO-8835] c27 N78-33228
- THERMOPLASTICITY**
- Process for preparing thermoplastic aromatic polyimides [NASA-CASE-LAR-11828-1] c27 N78-32261
- THERMOREGULATION**
- Thermoregulating with cooling flow pipe network for humans [NASA-CASE-XMS-10269] c05 N71-24147
- THERMOSETTING RESINS**
- Vacuum method for molding thermosetting compounds used as ablative materials [NASA-CASE-XLA-01091] c15 N71-10672
- Procedure for bonding polytetrafluoroethylene thermal protective sleeves to magnesium alloy conical shell components with different thermal coefficients [NASA-CASE-XLA-01262] c15 N71-21404
- Method for honeycomb panel bonding by thermosetting film adhesive with electrical heat means [NASA-CASE-INP-01402] c18 N71-21651
- Heat treatment and tooling for forming shapes from thermosetting honeycomb core sheets [NASA-CASE-NPO-11036] c15 N72-24522
- Fluorinated polyurethanes produced by reacting hydroxy terminated perfluoro polyether with diisocyanate [NASA-CASE-NPO-10767-2] c06 N72-27151
- Evacuated displacement compression molding [NASA-CASE-LAR-10782-1] c31 N74-14133
- Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article [NASA-CASE-LAR-10489-1] c31 N74-18124
- Evacuated, displacement compression mold --- of tubular bodies from thermosetting plastics [NASA-CASE-LAR-10782-2] c31 N75-13111
- Cork-resin ablative insulation for complex surfaces and method for applying the same [NASA-CASE-MFS-23626-1] c24 N78-32190
- THERMOSTATS**
- Thermal switch for transferring excess heat from one region to another heat dissipating one [NASA-CASE-INP-00463] c33 N70-36847
- Design and development of linear actuator based on bimetallic spring expansion [NASA-CASE-NPO-10637] c15 N72-12409
- Thermostatically controlled non-tracking type solar energy concentrator [NASA-CASE-NPO-13497-1] c44 N76-14602
- THICK FILMS**
- Material compositions and processes for developing dielectric thick films used in microcircuit capacitors [NASA-CASE-LAR-10294-1] c26 N72-28762
- THICKNESS**
- Myocardium wall thickness transducer and measuring method [NASA-CASE-NPO-13644-1] c52 N76-29895
- THIN FILMS**
- Temperature sensitive capacitor device for detecting very low intensity infrared radiation [NASA-CASE-INP-09750] c14 N69-39937
- Means and methods of depositing thin films on substrates [NASA-CASE-INP-00595] c15 N70-34967
- Method of forming thin window drifted silicon charged particle detector [NASA-CASE-XLE-00808] c24 N71-10560
- Describing apparatus used in vacuum deposition of thin film inductive windings for spacecraft microcircuitry [NASA-CASE-INP-01667] c15 N71-17647
- Describing method for vapor deposition of gallium arsenide films to manganese substrates to provide semiconductor devices with low resistance substrates [NASA-CASE-INP-01328] c26 N71-18064
- Development of stable electronic amplifier adaptable for monolithic and thin film construction [NASA-CASE-XGS-02812] c09 N71-19466
- Sputter proof evaporant source design for use in vacuum deposition of solid thin films on substrates [NASA-CASE-INP-06065] c15 N71-20395
- Binding layer of semiconductor particles by electrodeposition [NASA-CASE-INP-01959] c26 N71-23043
- Device for high vacuum film deposition with electromagnetic ion steering [NASA-CASE-NPO-10331] c09 N71-26701
- Magnetic recording head composed of ferrite core coated with thin film of aluminum-iron-silicon alloy [NASA-CASE-GSC-10097-1] c08 N71-27210
- Thin film capacitive bolometer and capacitance temperature interchange sensor [NASA-CASE-NPO-10607] c09 N71-27232

THIN PLATES

SUBJECT INDEX

Electrical connections for thin film hybrid microcircuits
[NASA-CASE-MMS-02182] c10 N71-28783

Single crystal film semiconductor devices
[NASA-CASE-ERC-10222] c09 N72-22199

Waveguide, thin film window and microwave irises
[NASA-CASE-IAR-10513-1] c07 N72-25170

Thin absorbing metallic film for increased visible light transmission
[NASA-CASE-LAR-10836-1] c26 N72-27/84

Development of thin film microwave iris installed in microwave waveguide transverse to flow of energy in waveguide
[NASA-CASE-LAR-10511-1] c09 N72-29172

Development of procedure for producing thin transparent films of zinc oxide on transparent refractory substrate
[NASA-CASE-PRC-10019] c15 N73-12487

Process for analysis of strain field of structures subjected to large deformations involving low modulus substrate with thin coating
[NASA-CASE-LAR-10765-1] c32 N73-20740

Dual wavelength system for monitoring film deposition
[NASA-CASE-MPS-20675] c26 N73-26751

Thin film analyzer utilizing holographic techniques
[NASA-CASE-MPS-20823-1] c16 N73-30476

Transparent switchboard which permits optical display devices to be adapted for use in man machine communications
[NASA-CASE-MSC-13746-1] c10 N73-32143

Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel
[NASA-CASE-LAR-11053-1] c25 N74-18551

Method of preparing water purification membranes --- polymerization of allyl amine as thin films in plasma discharge
[NASA-CASE-ARC-10643-1] c25 N75-12087

System for depositing thin films
[NASA-CASE-MPS-20775-1] c31 N75-12161

Method of producing a storage bulb for an atomic hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029

Integrated structure vacuum tube
[NASA-CASE-ARC-10445-1] c31 N76-31365

Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

Partial interlaminar separation system for composites
[NASA-CASE-LAR-12065-1] c24 N78-22162

A method and alloy for making electrical connections to conductive thin film
[NASA-CASE-GSC-12408-1] c33 N79-17135

THIN PLATES

Dichroic plate --- as bandpass filters
[NASA-CASE-NPO-13506-1] c35 N76-15435

Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383

THIN WALLED SHELLS

Thin walled pressure test vessel using low-melting alloy-filled joint to attach shell to heads
[NASA-CASE-XLE-04677] c15 N71-10577

THIN WALLS

Channel-type shell construction for rocket engines and related configurations
[NASA-CASE-XLE-00144] c28 N70-34860

Sealed separable connection for thin wall metal tube
[NASA-CASE-NPO-10064] c15 N71-17693

Low mass truss structure with elongated thin-walled tubular segments
[NASA-CASE-LAR-10546-1] c11 N72-25287

Development of differential pressure control system using motion of mechanical diaphragms to operate electric switch
[NASA-CASE-MPS-14216] c14 N73-13418

Method of fabricating an article with cavities --- with thin bottom walls
[NASA-CASE-LAR-10318-1] c31 N74-18089

Method of fabricating an object with a thin wall having a precisely shaped slit
[NASA-CASE-LAR-10409-1] c31 N74-21059

THORIUM FLUORIDES

Ultraviolet filter of thorium fluoride and

cryolite on quartz base
[NASA-CASE-XNP-02340] c23 N69-24332

THORIUM OXIDES

Nuclear thermionic converter --- tungsten-thorium oxide rods
[NASA-CASE-NPO-13121-1] c73 N77-18891

THREADS

Gage for quality control of sealing surfaces of threaded boss
[NASA-CASE-XNP-04966] c14 N71-17658

Threadless fastener apparatus comprising receiving apertures for plurality of articles, self-locked condition, and capable of using nonmalleable materials in both ends
[NASA-CASE-XPR-05302] c15 N71-23254

THREE DIMENSIONAL MOTION

Solid state controller three axes controller
[NASA-CASE-MSC-12394-1] c08 N74-10942

THRESHOLD GATES

Apparatus with summing network for compression of analog data by decreasing slope threshold sampling
[NASA-CASE-NPO-10769] c08 N72-11171

Radiation hardening of MOS device by boron --- for stabilizing gate threshold potential
[NASA-CASE-GSC-11425-2] c76 N75-25730

THRESHOLD LOGIC

Silicon controlled rectifier pulse gate amplifier for blocking false gating caused by negative transient voltages
[NASA-CASE-XLA-07497] c09 N71-12514

THROATS

Method of making a rocket nozzle
[NASA-CASE-XNP-06884-1] c20 N79-21123

THRUST AUGMENTATION

Exhaust nozzle with afterburning for generating thrust
[NASA-CASE-XLA-00154] c28 N70-33374

Construction and method of arranging plurality of ion engines to form cluster thereby increasing efficiency and control by decreasing heat radiated to space
[NASA-CASE-XNP-02923] c28 N71-23081

Reversed cowl flap inlet thrust augmentor --- with adjustable airfoil
[NASA-CASE-ARC-10754-1] c07 N75-24736

THRUST BEARINGS

Thrust bearing
[NASA-CASE-LEW-11949-1] c37 N76-29588

THRUST CHAMBERS

Rocket chamber leak test fixture using tubular plug
[NASA-CASE-XPR-09479] c14 N69-27503

Supporting and protecting frame structure and plug for empty thrust chamber assembly, handling, and shipping
[NASA-CASE-XNP-00580] c11 N70-35383

Large area-ratio nozzles for rocket motor thrust chambers
[NASA-CASE-XLE-00145] c28 N70-36806

Method for shaping regeneratively cooled rocket motor casing having minimum thickness at each channel cross section
[NASA-CASE-XLE-00409] c28 N71-15658

Regeneratively cooled rocket motor casing with tapered channels to insure minimum thicknesses at each channel cross section for necessary strength requirements
[NASA-CASE-XLE-05689] c28 N71-15659

Rocket engine injector orifice to accommodate changes in density, velocity, and pressure, thereby maintaining constant mass flow rate of propellant into rocket combustion chamber
[NASA-CASE-XLE-03157] c28 N71-24736

Fuel and oxidizer injection head for thrust chamber of reaction engine
[NASA-CASE-NPO-10046] c28 N72-17843

Continuous gas flow control by fluidic proportional thruster system
[NASA-CASE-ARC-10106-1] c28 N72-22769

Radial magnetic field for ion thruster
[NASA-CASE-LEW-10770-1] c28 N72-22770

Thermal flux transfer system for maintaining thrust chamber of operative reaction motor at given temperatures
[NASA-CASE-NPO-12070-1] c28 N73-32606

Heat exchanger --- rocket combustion chambers and cooling systems
[NASA-CASE-LEW-12252-1] c34 N79-13288

SUBJECT INDEX

TIME SIGNALS

- Heat exchanger and method of making --- bonding
rocket chambers with a porous metal matrix
[NASA-CASE-LEW-12441-1] c34 N79-13289
- THRUST CONTROL**
- Electromechanical actuator and its use in rocket
thrust control valve
[NASA-CASE-INP-05975] c15 N69-23185
- Solid propellant rocket vehicle thrust control
method and apparatus
[NASA-CASE-INP-00217] c28 N70-38181
- Thrust and attitude control apparatus using jet
nozzle in movable canard surface or fin
configuration
[NASA-CASE-XLE-03583] c31 N71-17629
- Detonation reaction engine comprising outer
housing enclosing pair of inner walls for
continuous flow
[NASA-CASE-INP-06926] c28 N71-22983
- Low mass ionizing device for use in electric
thrust spacecraft engines
[NASA-CASE-INP-01954] c28 N71-28850
- Heated porous plug microthrustor for spacecraft
reaction jet controlled systems such as fuel
flow regulation, propellant disassociation,
and heat transfer augmentation
[NASA-CASE-GSC-10640-1] c28 N72-18766
- Multi-purpose wind tunnel reaction control model
block
[NASA-CASE-MSC-19706-1] c09 N70-31129
- Fluid thrust control system --- for liquid
propellant rocket engines
[NASA-CASE-INP-05964-1] c20 N79-21124
- THRUST LOADS**
- Thrust measurement
[NASA-CASE-XNS-05731] c35 N75-29382
- THRUST MEASUREMENT**
- Dynamometer measuring microforce thrust produced
by ion engine
[NASA-CASE-XLE-00702] c14 N70-40203
- Development of thrust dynamometer for measuring
performance of jet and rocket engines
[NASA-CASE-XLE-05260] c14 N71-20429
- Development of temperature compensated thrust
measuring gage for measuring forces as
function of time in environment with varying
temperature
[NASA-CASE-IGS-02319] c14 N71-22965
- Micro-pound extended range thrust stand for
small rocket engines
[NASA-CASE-GSC-10710-1] c28 N71-27094
- THRUST VECTOR CONTROL**
- Thrust vector control by secondary injection of
fluid into rocket nozzle flow field to
separate exhaust flow
[NASA-CASE-XLE-00208] c28 N70-34294
- High velocity guidance and spin stabilization
gyro controlled jet reaction system for launch
vehicle payloads
[NASA-CASE-XLA-01339] c31 N71-15692
- Ion beam deflector system for electronic thrust
vector control for ion propulsion yaw, pitch,
and roll forces
[NASA-CASE-LEW-10689-1] c28 N71-26173
- Tertiary flow injection system for thrust
vectoring of propulsive nozzle flow
[NASA-CASE-HFS-20831] c28 N71-29153
- Development of thrust control system for
application to control of aircraft and
spacecraft
[NASA-CASE-MSC-13397-1] c21 N72-25595
- Development of vortex fluid amplifier for
throttling rocket exhaust
[NASA-CASE-LEW-10374-1] c28 N73-13773
- System for imposing directional stability on a
rocket-propelled vehicle
[NASA-CASE-HFS-21311-1] c20 N76-21275
- THRUST-WEIGHT RATIO**
- Launch pad missile release system with bending
moment change rate reduction in thrust
distribution structure at liftoff
[NASA-CASE-INP-03198] c30 N70-40353
- FILES**
- Strain arrestor plate for fused silica tile ---
bonding of thermal insulation to metallic
plates or structural parts
[NASA-CASE-MSC-14182-1] c27 N76-14264
- TILT WING AIRCRAFT**
- Free wing assembly for an aircraft
[NASA-CASE-PRC-10092-1] c05 N79-12061
- TIME CONSTANT**
- Variable time constant, wide frequency range
smoothing network for noise removal from pulse
chains
[NASA-CASE-IGS-01983] c10 N70-41964
- TIME DISCRIMINATION**
- Extra-long monostable multivibrator employing
bistable semiconductor switch to allow
charging of timing circuit
[NASA-CASE-IGS-00381] c09 N70-34819
- TIME DIVISION MULTIPLEXING**
- Synchronizing apparatus for multi-access
satellite time division multiplex system
[NASA-CASE-IGS-05918] c07 N69-39974
- Time division multiplexer with magnetic latching
relays
[NASA-CASE-INP-00431] c09 N70-38998
- Data processor having multiple sections
activated at different times by selective
power coupling to sections
[NASA-CASE-IGS-04767] c08 N71-12494
- Minimum time delay unit for conventional time
multiplexed data compression channels
[NASA-CASE-INP-08832] c08 N71-12506
- Time division relay synchronizer with master
sync pulse for activating binary counter to
produce signal identifying time slot for station
[NASA-CASE-GSC-10373-1] c07 N71-19773
- Sampling circuit for signal processing in
multiplex transmission by Fourier analysis
[NASA-CASE-NPO-10368] c07 N71-24622
- Time division multiplexed telemetry transmitting
system controlled by programmed memory
[NASA-CASE-GSC-10131-1] c07 N71-24624
- TIME FUNCTIONS**
- Cathode ray oscilloscope for analyzing
electrical waveforms representing amplitude
distribution of time function
[NASA-CASE-INP-01383] c09 N71-10659
- TIME LAG**
- Closed loop radio communication ranging system
to determine distance between moving airborne
vehicle and fixed ground station
[NASA-CASE-INP-01501] c21 N70-41930
- Minimum time delay unit for conventional time
multiplexed data compression channels
[NASA-CASE-INP-08832] c08 N71-12506
- Apparatus for estimating amplitude and sign of
phase difference or time lag between two signals
[NASA-CASE-NPO-11203] c10 N72-20224
- Automatic transponder --- measurement of the
internal delay time of a transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
- Time delay and integration detectors using
charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262
- TIME MEASUREMENT**
- Time domain phase measuring apparatus
[NASA-CASE-GSC-12228-1] c33 N79-10338
- TIME MEASURING INSTRUMENTS**
- Mechanism for measuring nanosecond time
differences between luminous events using
streak camera
[NASA-CASE-XLA-01987] c23 N71-23976
- TIME OF FLIGHT SPECTROMETERS**
- Design and characteristics of time of flight
mass spectrometer to measure or analyze gases
at low pressures and time of flight of single
gas molecule
[NASA-CASE-INP-01056] c14 N71-23041
- TIME SERIES ANALYSIS**
- Device for performing statistical time-series
analysis of complex electrical signal waveforms
[NASA-CASE-MSC-12428-1] c10 N73-25240
- TIME SHARING**
- Integrated time shared instrumentation display
for aerospace vehicle simulators
[NASA-CASE-XLA-01952] c08 N71-12507
- TIME SIGNALS**
- Monitoring system for signal amplitude ranges
over predetermined time interval
[NASA-CASE-XNS-04061-1] c09 N69-39885
- Development of method for synchronizing clocks
at several ground stations based on signals
received from spacecraft or satellites
[NASA-CASE-INP-08875] c10 N71-23099
- Time synchronization system for synchronizing
clocks at remote locations with master clock
using moon reflected coded signals

TIMING DEVICES

- [NASA-CASE-NPO-10143] c10 N71-26326
Circuit for measuring wide range of pulse rates
by utilizing high capacity counter
[NASA-CASE-XNP-06234] c10 N71-27137
System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519

TIMING DEVICES

- Design and development of synchronous servo loop
control system
[NASA-CASE-XNP-03744] c10 N71-20448
Development of method for synchronizing clocks
at several ground stations based on signals
received from spacecraft or satellites
[NASA-CASE-XNP-08875] c10 N71-23099
Development and characteristics of resettable
monostable pulse generator with charge
rundown-timing circuit
[NASA-CASE-GSC-11139] c09 N71-27016
Data acquisition and processing system with
buffer storage and timing device for magnetic
tape recording of PCM data and timing
information
[NASA-CASE-NPO-12107] c08 N71-27255
High speed photo-optical time recorder for
indicating time at exposure of each frame of
high speed movie camera film
[NASA-CASE-KSC-10294] c14 N72-18411

TIRES

- Temperature sensor warning system for pneumatic
tires of aircraft and ground vehicles
[NASA-CASE-XLA-01926] c14 N71-15620
Resilient wheel design with woven wire tire and
abrasive treads for lunar surface vehicles
[NASA-CASE-NFS-13929] c15 N71-27091

TISSUES (BIOLOGY)

- Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123
Method and system for in vivo measurement of
bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737
System for and method of freezing biological
tissue
[NASA-CASE-GSC-12173-1] c51 N79-10694
Coupling apparatus for ultrasonic medical
diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751

TITANATES

- Vacuum preparation of zinc titanate pigment
resistant to loss of reflective properties
[NASA-CASE-NFS-13532] c18 N72-17532

TITANIUM

- Joining aluminum to stainless steel by bonding
aluminum coatings onto titanium coated
stainless steel and brazing aluminum to
aluminum/titanium coated steel
[NASA-CASE-NFS-07369] c15 N71-20443
Weld-bonded titanium structures
[NASA-CASE-LAR-11549-1] c37 N77-11397
Method of mitigating titanium impurities effects
in P-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N79-17315

TITANIUM ALLOYS

- Method to prevent stress corrosion cracking in
titanium alloys
[NASA-CASE-NPO-10271] c17 N71-16393
Chemical spot tests for identification of
titanium and titanium alloys used in aerospace
vehicles
[NASA-CASE-LAR-10539-1] c17 N73-12547

TITANIUM OXIDES

- Method of preparing zinc orthotitanate pigment
[NASA-CASE-NFS-23345-1] c27 N77-30237

TOLERANCES (MECHANICS)

- Mechanism for restraining universal joints to
prevent separation while allowing bending,
angulation, and lateral offset in any position
about axis
[NASA-CASE-XNP-02278] c15 N71-28951

TOPOGRAPHY

- A system for plotting subsoil structure and
method therefor
[NASA-CASE-NPO-14191-1] c46 N79-20555

TOOLS

- Tool attachment for spreading or moving away
loose elements from terminal posts during
winding of filamentary elements
[NASA-CASE-XNP-02107] c15 N71-10809
Development of adjustable attitude guide block
for setting pins perpendicular to irregular

SUBJECT INDEX

- convex work surface
[NASA-CASE-XLA-07911] c15 N71-15571
Hand tool for forming dimples and nipples on end
portion of tubes
[NASA-CASE-XMS-06876] c15 N71-21536
Tool for mounting and removing studs with
adhesive coated head portion
[NASA-CASE-NFS-20299] c15 N72-11392
Insert facing tool --- manually operated cutting
tool for forming studs in honeycomb material
[NASA-CASE-NFS-21485-1] c37 N74-25968
Stator rotor tools
[NASA-CASE-MSC-16000-1] c37 N78-24544
A tool for use in joining connectors to shielded
cables
[NASA-CASE-NPO-14296-1] c37 N78-25432
- TOOTH DISEASES**
Process for preparing calcium phosphate salts
for tooth repair
[NASA-CASE-ERC-10338] c04 N72-33072
- TORCHES**
Computer controlled apparatus for maintaining
welding torch angle and velocity during seam
tracking
[NASA-CASE-XNP-03287] c15 N71-15607
Development of electric weeding torch with
casing on one end to form inert gas shield
[NASA-CASE-XNP-02330] c15 N71-23798
Computerized system for translating a torch head
[NASA-CASE-NFS-23620-1] c37 N79-10421
- TOROIDS**
Flux gate magnetometer with toroidal gating coil
and solenoidal output coil for signal
modulation or amplification
[NASA-CASE-XGS-01881] c09 N70-40123
- TORQUE**
Gearing system for eliminating backlash and
filtering input torque fluctuations from high
inertia load
[NASA-CASE-XGS-04227] c15 N71-21744
Coupling arrangement for isolating torque loads
from axial, radial, and bending loads
[NASA-CASE-XLA-04897] c15 N72-22482
High-torque open-end wrench
[NASA-CASE-NPO-13541-1] c37 N79-14383
Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c74 N79-20827
- TORQUE MOTORS**
Low speed phaselock speed control system --- for
brushless dc motor
[NASA-CASE-GSC-11127-1] c09 N75-24758
- TORQUEMETERS**
Remote-reading torquemeter for use where high
horsepowers are transmitted at high rotative
speeds
[NASA-CASE-XLE-00503] c14 N70-34818
Torquemeter for determining magnitude of torque
generated by interaction of magnetic dipole
between test specimen and ambient magnetic field
[NASA-CASE-XGS-01013] c14 N71-23725
- TORSO**
Restraint torso for increased mobility and
reduced physiological effects while wearing
pressurized suits
[NASA-CASE-MSC-12397-1] c05 N72-25119
Spacesuit torso closure
[NASA-CASE-ARC-11100-1] c54 N78-31736
- TOUCH**
Mechanically operated hand which can depress
trigger using touch control device
[NASA-CASE-NFS-20413] c15 N72-21463
Measuring method for cutaneous perception using
instrument with elongated tubular housing
[NASA-CASE-MSC-13609-1] c05 N72-25122
Prosthetic limb with tactile sensing device
[NASA-CASE-NFS-16570-1] c05 N73-32013
- TOUGHNESS**
High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-3] c26 N79-19145
- TOWERS**
Aerial capsule emergency separation device using
jettisonable towers
[NASA-CASE-XLA-00115] c03 N70-33343
- TOWING**
Tow bar for aircraft
[NASA-CASE-FRC-11022-1] c09 N79-10069
- TOXICITY AND SAFETY HAZARD**
Apparatus for remote handling of materials ---
mixing or analyzing dangerous chemicals

SUBJECT INDEX

TRANSDUCERS

- [NASA-CASE-LAR-10634-1] c37 N74-18123
- TOXICOLOGY**
System for continuous monitoring of exhalations, weighing, and cage cleaning for animal exposed to controlled atmosphere for toxic study
[NASA-CASE-XAC-05333] c11 N71-22875
- TRACE CONTAMINANTS**
Describing crystal oscillator instrument for detecting condensable gas contaminants in vacuum apparatus
[NASA-CASE-NPO-10144] c14 N71-17701
Heated tungsten filter for removing oxygen impurities from cesium
[NASA-CASE-XNP-04262-2] c17 N71-26773
Electric discharge for treatment of trace contaminants
[NASA-CASE-ARC-10975-1] c33 N79-15245
- TRACE ELEMENTS**
Ion microprobe mass spectrometer with cooled electrode target for analyzing traces of fluids
[NASA-CASE-ERC-10014] c14 N71-28863
Automated system for identifying traces of organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245
Nulling device for detection of trace gases by NDIR absorption
[NASA-CASE-ARC-10760-1] c25 N76-22323
Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210
- TRACHEA**
Micro-fluid exchange coupling apparatus --- a microrespirator to allow surgery on rats or mice
[NASA-CASE-ABC-11114-1] c52 N78-33717
- TRACKING (POSITION)**
Sensor consisting of photocells mounted on pyramidal base for improved pointing accuracy of planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736
Telespectrograph for analyzing upper atmosphere by tracking bodies reentering atmosphere at high velocities
[NASA-CASE-XLA-03273] c14 N71-18699
Laser beam projector for continuous, precise alignment between target, laser generator, and astronomical telescope during tracking
[NASA-CASE-NPO-11087] c23 N71-29125
Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking
[NASA-CASE-NPS-23267-1] c35 N77-20401
System and method for tracking a signal source --- employing feedback control
[NASA-CASE-HQN-10880-1] c17 N78-17140
Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N79-14526
- TRACKING FILTERS**
System for phase locking onto carrier frequency signal located within receiver bandpass
[NASA-CASE-XGS-04994] c09 N69-21543
Apparatus and method for stabilized phase detection for binary signal tracking loops
[NASA-CASE-HSC-16461-1] c33 N79-11313
PN lock indicator for dithered PN code tracking loop
[NASA-CASE-NPO-14435-1] c33 N79-18224
- TRACKING RADAR**
Electronic and mechanical scanning control system for monopulse tracking antenna
[NASA-CASE-XGS-05582] c07 N69-27460
Phase locked loop with sideband rejecting properties in continuous wave tracking radar
[NASA-CASE-XNP-02723] c07 N70-41680
Interferometric tuning acquisition and tracking radar antenna system
[NASA-CASE-XMS-09610] c07 N71-24625
Acquisition and tracking system for optical radar
[NASA-CASE-NPS-20125] c16 N72-13437
- TRACKING STATIONS**
Optical monitor panel consisting of translucent screen with test or meter information projected onto it from rear for application in control rooms of missile launching and tracking stations
[NASA-CASE-XKS-03509] c14 N71-23175
Simultaneous acquisition of tracking data from two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854
- TRAFFIC CONTROL**
Traffic survey system --- using optical scanners
- [NASA-CASE-NPS-22631-1] c66 N76-19888
- TRAILING-EDGE FLAPS**
Double hinged flap for boundary layer control over trailing edges of wings
[NASA-CASE-XLA-01290] c02 N70-42016
Variable area exhaust nozzle
[NASA-CASE-LRW-12378-1] c07 N79-14097
- TRAINING SIMULATORS**
Low and zero gravity simulator for astronaut training
[NASA-CASE-NPS-10555] c11 N71-19494
Apparatus for training astronaut crews to perform on simulated lunar surface under conditions of lunar gravity
[NASA-CASE-XMS-04798] c11 N71-21474
Kinesthetic control simulator --- for pilot training
[NASA-CASE-LAR-10276-1] c09 N75-15662
- TRAJECTORY ANALYSIS**
Table structure and rotating magnet system simulating gravitational forces on spacecraft and displaying trajectories between Earth, Venus, and Mercury
[NASA-CASE-XNP-00708] c14 N70-35394
Planetary atmospheric investigation using split trajectory dual flyby mode
[NASA-CASE-XAC-08494] c30 N71-15990
- TRAJECTORY CONTROL**
Spacecraft trajectory correction propulsion system
[NASA-CASE-XNP-01104] c28 N70-39931
Development of technique for control of free flight rocket vehicles
[NASA-CASE-XLA-00937] c31 N71-17691
Attitude stabilizer for nonguided missile or vehicle with respect to trajectory
[NASA-CASE-ARC-10134] c30 N72-17873
- TRANSDUCERS**
Fabrication of pressure-telemetry transducers
[NASA-CASE-XNP-09752] c14 N69-21541
Bootstrap unloading circuits for sampling transducer voltage sources without drawing current
[NASA-CASE-XNP-09768] c09 N71-12516
Transducer for measuring deflections from vibrating structures
[NASA-CASE-XLA-03135] c32 N71-16428
Describing device for surveying contour of surface using X-Y plotter and traveling transducer
[NASA-CASE-XLA-08646] c14 N71-17586
Rotary bead dropper and selector for testing micrometeorite transducers
[NASA-CASE-XGS-03304] c09 N71-22988
Development and characteristics of self-calibrating displacement transducer for measuring magnitude and frequency of displacement of bodies
[NASA-CASE-XLA-00781] c09 N71-22999
Transducer frame for use with extensometer to continuously monitor specimen sample
[NASA-CASE-XLA-10322] c15 N72-17452
Split range transducer
[NASA-CASE-XLA-11189] c10 N72-20222
Pulsed excitation voltage circuit for strain gage bridge transducers
[NASA-CASE-FRC-10036] c09 N72-22200
Passive type, magnifying scratch gage, force transducer
[NASA-CASE-LAR-10496-1] c14 N72-22437
Development of electronic detection system for remotely determining number and movement of enemy personnel
[NASA-CASE-ARC-10097-2] c07 N73-25160
Acoustical transducer calibrating system including differential pressure activating device
[NASA-CASE-FRC-10060-1] c14 N73-27379
Demodulator for carrier transducers
[NASA-CASE-NUC-10107-1] c33 N74-17930
LC-oscillator with automatic stabilized amplitude via bias current control --- power supply circuit for transducers
[NASA-CASE-NPS-21698-1] c33 N74-26732
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566
Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520
Subminiature insertable force transducer --- including a strain gage to measure forces in

TRANSFORMERS

muscles
[NASA-CASE-NPO-13423-1] c33 N75-31329
Self-supporting strain transducer
[NASA-CASE-LAR-11263-1] c35 N75-33369
Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338
Method and apparatus for nondestructive testing
of pressure vessels
[NASA-CASE-NPO-12142-1] c38 N76-28563
Myocardium wall thickness transducer and
measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895
Apparatus and method for determining the
position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410
Solar cell angular position transducer
[NASA-CASE-LAR-11999-1] c35 N78-18394
Photomechanical transducer --- using thin strips
of photoabsorptive metal or polymeric film
with strain gages
[NASA-CASE-NPO-14363-1] c76 N79-14908

TRANSFORMERS

Impedance transformation device for signal mixing
[NASA-CASE-XGS-01110] c07 N69-24334
High impedance alternating current sensing
transformer device between two bolometers for
measuring insertion loss of test component
[NASA-CASE-XNP-01193] c10 N71-16057
Magnetic current regulator for saturable core
transformer
[NASA-CASE-ERC-10075] c09 N71-24800
Unsaturating magnetic core transformer design
with warning signal for electrical power
processing equipment
[NASA-CASE-ERC-10125] c09 N71-24893
Development and characteristics of
electronically resettable fuse with saturable
core current sensing transformer having two
outside legs and center leg
[NASA-CASE-XGS-11177] c09 N71-27001
Development and characteristics of voltage
regulator for connection in series with
alternating current source and load using
three leg, two-window transformer
[NASA-CASE-ERC-10113] c09 N71-27053
Radial heat flux transformer for use in heating
and cooling processes
[NASA-CASE-NPO-10828] c33 N72-17948
Current protection equipment for saturable core
transformers
[NASA-CASE-ERC-10075-2] c09 N72-22196
Fail-safe multiple transformer circuit
configuration
[NASA-CASE-NPO-11078] c09 N72-25262
Banded transformer cores
[NASA-CASE-NPO-11966-1] c33 N74-17928
Solid-state current transformer
[NASA-CASE-MFS-22560-1] c33 N77-14335
Circuit for automatic load sharing in parallel
converter modules
[NASA-CASE-NPO-14056-1] c33 N77-32402
Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295
System for automatically switching transformer
coupled lines
[NASA-CASE-MSC-16697-1] c33 N78-22298
Apparatus including a plurality of spaced
transformers for locating short circuits in
cables
[NASA-CASE-KSC-10899-1] c33 N79-18193

TRANSIENT HEATING

Thermocouple installation
[NASA-CASE-NPO-13540-1] c35 N77-14409

TRANSIENT LOADS

Deployable cantilever support for deploying
solar cell arrays aboard spacecraft and
reducing transient loading
[NASA-CASE-NPO-10883] c31 N72-22874

TRANSISTOR AMPLIFIERS

Overcurrent protecting circuit for push-pull
transistor amplifiers
[NASA-CASE-MSC-12033-1] c09 N71-13531
Dual mode solid state power switch
[NASA-CASE-MFS-22880-2] c33 N77-31407

TRANSISTOR CIRCUITS

Low power drain transistor feedback circuit
[NASA-CASE-XGS-04999] c09 N69-24317
Design of transistorized ring counter circuit
with special steering and triggering circuits

SUBJECT INDEX

[NASA-CASE-XGS-03095] c09 N69-27463
RC transistor circuit to indicate each pulse of
pulse train and occurrence of nth pulse
[NASA-CASE-XNP-00906] c09 N70-41655
Linear sawtooth voltage wave generator with
transistor timing circuit having capacitor and
zener diode feedback loops
[NASA-CASE-XMS-01315] c09 N70-41675
Switching circuit with regeneratively connected
transistors eliminating power consumption when
not in use
[NASA-CASE-XNP-02654] c10 N70-42032
High voltage transistor circuit
[NASA-CASE-XNP-06937] c09 N71-19516
Complementary regenerative transistorized switch
circuit employing positive and negative feedback
[NASA-CASE-XGS-02751] c09 N71-23015
Inverter drive circuit for semiconductor switch
[NASA-CASE-LEW-10233] c10 N71-27126
Transistorized circuit for producing multiple
slope voltage sweep
[NASA-CASE-XMS-03542] c09 N71-28926
Circuitry for high input impedance video
processor with high noise immunity
[NASA-CASE-NPO-10199] c09 N72-17156
Ultra-stable oscillator with complementary
transistors
[NASA-CASE-GSC-11513-1] c33 N74-20862
Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333
Temperature compensated current source
[NASA-CASE-MSC-11235] c33 N78-17294

TRANSISTORS
Power supply with overload protection for series
stage transistor
[NASA-CASE-XMS-00913] c10 N71-23543
Solid state circuit for switching alternating
current input signal as function of direct
current gating transistor
[NASA-CASE-XNP-06505] c10 N71-24799
Broadband distribution amplifier with
complementary pair transistor output stages
[NASA-CASE-NPO-10003] c10 N71-26415
Transistorized switching logic circuits with
tunnel diodes
[NASA-CASE-GSC-10878-1] c10 N72-22236
Inverted geometry transistor for use with
monolithic integrated circuit
[NASA-CASE-ARC-10330-1] c09 N73-32112
Four phase logic systems --- including
integrated microcircuits
[NASA-CASE-MSC-14240-1] c33 N75-14957
Improved base drive for paralleled inverter
systems
[NASA-CASE-NPO-14163-1] c37 N78-22376
Complementary DMOS-V MOS integrated circuit
structure
[NASA-CASE-GSC-12190-1] c33 N79-12321

TRANSITION FLOW
Ablation article and surface for analyzing flow
transition on ablative surface
[NASA-CASE-LAR-10439-1] c33 N73-27796

TRANSITION TEMPERATURE
Process for preparing thermoplastic aromatic
polyimides
[NASA-CASE-LAR-11828-1] c27 N78-32261

TRANSLATIONAL MOTION
Centrifuge mounted motion simulator with
elevator mechanism
[NASA-CASE-XAC-00399] c11 N70-34815
Development and characteristics of translating
horizontal tail assembly for supersonic aircraft
[NASA-CASE-XLA-08801-1] c02 N71-11043
Semilinear bearing comprising two rows of roller
bearings separated by spherical bearings and
permitting rotational and translational movement
[NASA-CASE-XLA-02809] c15 N71-22982
Positioning mechanism for converting translatory
motion into rotary motion
[NASA-CASE-NPO-10679] c15 N72-21462

TRANSMISSION EFFICIENCY
Microwave power transmission system wherein
level of transmitted power is controlled by
reflections from receiver
[NASA-CASE-MFS-21470-1] c44 N74-19870
Linear phase demodulator including a phase
locked loop with auxiliary feedback loop
[NASA-CASE-GSC-12018-1] c33 N77-14334

TRANSMISSION LINES

- Portable equipment for validating C band launch pad antennas and transmission lines used for spacecraft checkout
[NASA-CASE-XKS-10543] c07 N71-26292
- Collapsible antenna boom and coaxial transmission line having inflatable inner tube
[NASA-CASE-MFS-20068] c07 N71-27191
- Phase modulator with tuned variable length electrical lines including coupling and varactor diode circuits
[NASA-CASE-MSC-13201-1] c07 N71-28429
- Shielded flat conductor cable of ribbonlike wires laminates in thin flexible insulation
[NASA-CASE-MFS-13687-2] c09 N72-22198
- Development of phase control coupling for use with phased array antenna
[NASA-CASE-ERC-10285] c10 N73-16206
- Phase protection system for ac power lines
[NASA-CASE-MSC-17832-1] c33 N74-14956
- System for stabilizing cable phase delay utilizing a coaxial cable under pressure
[NASA-CASE-NPO-13138-1] c33 N74-17927
- System for automatically switching transformer coupled lines
[NASA-CASE-MSC-16697-1] c33 N78-22298

TRANSMITTER RECEIVERS

- Low weight, integrated thermoelectric generator/antenna combination for spacecraft
[NASA-CASE-XER-09521] c09 N72-12136
- Location identification system with ground based transmitter and aircraft borne receiver/decoder
[NASA-CASE-ERC-10324] c07 N72-25173
- Automatic vehicle location system
[NASA-CASE-NPO-11850-1] c32 N74-12912
- Digital communication system
[NASA-CASE-MSC-13912-1] c32 N74-30524

TRANSMITTERS

- Temperature telemetric transmitter with frequency determining tank circuit for short range transmission
[NASA-CASE-NPO-10649] c07 N71-24840
- Battery powered aircraft crash locator transmitter
[NASA-CASE-MFS-16609] c14 N72-21431
- Multicarrier communications system for transmitting modulated signals from single transmitter
[NASA-CASE-NPO-11548] c07 N73-26118
- Miniature multichannel biotelemetry system
[NASA-CASE-NPO-13065-1] c52 N74-26625
- Digital transmitter for data bus communications system
[NASA-CASE-MSC-14558-1] c32 N75-21486

TRANSONIC SPEED

- Construction of leading edges of surfaces for aerial vehicles performing from subsonic to above transonic speeds
[NASA-CASE-XLA-01486] c01 N71-23497

TRANSONIC WIND TUNNELS

- Wind tunnel test section for simulating high Reynolds number over transonic speed range
[NASA-CASE-MFS-20509] c11 N72-17183

TRANSPARENCE

- Transparent polycarbonate resin, shell helmet and latch design for high altitude and space flight
[NASA-CASE-XMS-04935] c05 N71-11190
- Method and apparatus for producing an image from a transparent object
[NASA-CASE-GSC-11989-1] c74 N77-28932
- Method of fabricating a photovoltaic of a substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

TRANSPARATION

- Rocket chamber and method of making
[NASA-CASE-LEW-11118-2] c20 N76-14191

TRANSPONDERS

- Equipment for testing of ground station ranging equipment and spacecraft transponders
[NASA-CASE-XMS-05454-1] c07 N71-12391
- Spacecraft transponder and ground station radar system for mapping planetary surfaces
[NASA-CASE-NPO-11001] c07 N72-21118
- Loop transponder for regenerating code of mu-type ranging system
[NASA-CASE-NPO-11707] c07 N73-25161
- Automatic vehicle location system
[NASA-CASE-NPO-11850-1] c32 N74-12912

- Simultaneous acquisition of tracking data from two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854
- Automatic transponder --- measurement of the internal delay time of a transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
- Versatile transponder receiver
[NASA-CASE-NPO-14248-1] c32 N78-24402

TRANSPORTATION

- Supporting and protecting frame structure and plug for empty thrust chamber assembly, handling, and shipping
[NASA-CASE-IMP-00580] c11 N70-35383

TRAPS

- Deep trap, laser activated image converting system
[NASA-CASE-NPO-143131-1] c36 N75-19652

TRAVELING WAVE AMPLIFIERS

- Serrodyne traveling wave tube reentrant amplifier for synchronous communication satellites operating at microwave frequencies
[NASA-CASE-XGS-01022] c07 N71-16088
- Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility
[NASA-CASE-HQN-10069] c33 N75-27251

TRAVELING WAVE MASERS

- Design of folded traveling wave maser structure
[NASA-CASE-IMP-05219] c16 N71-15550
- Comb type traveling wave maser amplifier for improved high gain broadband output
[NASA-CASE-NPO-10548] c16 N71-24831
- Independent gain and bandwidth control of a traveling wave maser
[NASA-CASE-NPO-13801-1] c36 N78-18410

TRAVELING WAVE TUBES

- Segmented superconducting magnet producing staggered magnetic field and suitable for broadband traveling wave masers
[NASA-CASE-XGS-10518] c16 N71-28554
- Traveling wave tube circuit
[NASA-CASE-LEW-12013-1] c33 N79-10339

TRAVELING WAVES

- Traveling wave maser for operation in 7 to 20 GHz frequency range
[NASA-CASE-NPO-11437] c16 N72-28521

TREADMILLS

- Tread drum for animals --- having an electrical shock station
[NASA-CASE-ARC-10917-1] c51 N78-27733

TRIGGER CIRCUITS

- Design of transistorized ring counter circuit with special steering and triggering circuits
[NASA-CASE-XGS-03095] c09 N69-27463
- Triggering system for electric arc driven impulse wind tunnel
[NASA-CASE-IMP-00411] c11 N70-36913
- Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244
- One shot multivibrator circuit for producing long duration output pulses
[NASA-CASE-ARC-10137-1] c09 N71-28468
- Voltage amplitude-responsive trigger circuit with silicon controlled rectifier
[NASA-CASE-GSC-10221-1] c09 N72-23171
- Rapidly pulsed, high intensity, incoherent light source
[NASA-CASE-XLE-2529-3] c33 N74-20859

TRIGONOMETRY

- Electrical and electromechanical trigonometric computation assembly and space vehicle guidance system for aligning perpendicular axes of two sets of three-axes coordinate references
[NASA-CASE-IMP-00684] c21 N71-21688

TRIMERS

- New trifunctional alcohol derived from trimer acid and novel method of preparation
[NASA-CASE-NPO-10714] c06 N69-31244
- Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby
[NASA-CASE-LEW-12053-2] c23 N77-32244
- Trimerization of aromatic nitriles
[NASA-CASE-LEW-12053-1] c27 N78-15276

TRIODES

- Vacuum thermionic converter with short-circuited

triodes and increased electron transmission and conversion efficiency
[NASA-CASE-XLE-01015] c03 N69-39898

TRITIUM
Method for determining state of charge of alkali batteries by using tritium as tracer
[NASA-CASE-XNP-01464] c03 N71-10728

TRUCKS
Fifth wheel
[NASA-CASE-FRC-10081-1] c37 N77-14477

TRUSSES
Low mass truss structure with elongated thin-walled tubular segments
[NASA-CASE-LAR-10546-1] c11 N72-25287
Lightweight structural columns for truss structures
[NASA-CASE-LAR-12095-1] c39 N77-27432
Structural members, method and apparatus
[NASA-CASE-MSC-16217-1] c18 N78-22146

TUBE GRIDS
Method for fabricating solar cells having integrated collector grids
[NASA-CASE-LEW-12819-2] c44 N79-18444

TUBE HEAT EXCHANGERS
High resistance cross flow heat exchangers for electrothermal rocket engines
[NASA-CASE-XLE-01783] c28 N70-34175
Gas chromatographic method for determining water in nitrogen tetroxide rocket propellant
[NASA-CASE-NPO-10234] c06 N72-17094
Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ARC-11007-1] c52 N77-14736

TUBES
Forming tubes from long thin flat metal strips
[NASA-CASE-XGS-04175] c15 N71-18579
Hermetic sealing device for ends of tubular bodies during materials testing operations
[NASA-CASE-NPO-10431] c15 N71-29132

TUMBLING MOTION
Tumbling motion system for object demagnetization
[NASA-CASE-XGS-02437] c15 N69-21472

TUMORS
Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ARC-11007-1] c52 N77-14736

TUNGSTEN
Bonding method for improving contact between lead telluride thermoelectric elements and tungsten electrodes
[NASA-CASE-XGS-04554] c15 N69-39786
Method for producing porous tungsten plates for ionizing cesium compounds for propulsion of ion engines
[NASA-CASE-XLE-00455] c28 N70-38197
Small plasma probe using tungsten wire collector in tubular shield
[NASA-CASE-XLE-02578] c25 N71-20747
Production method for manufacturing porous tungsten bodies from tungsten powder particles
[NASA-CASE-XNP-04339] c17 N71-29137
Vapor deposition method for forming metallized tungsten contacts on silicon substrates
[NASA-CASE-GSC-10695-1] c09 N72-25259
Nuclear thermionic converter --- tungsten-thorium oxide rods
[NASA-CASE-NPO-13121-1] c73 N77-18891

TUNGSTEN ALLOYS
Evaporating crucible of tantalum-tungsten foil, nickel alumina bonding agent, and ceramic coating
[NASA-CASE-XLA-03105] c15 N69-27483
Cobalt-tungsten alloys with superior strength at elevated temperatures
[NASA-CASE-LEW-10436-1] c17 N73-32415
Directionally solidified eutectic gamma plus beta nickel-base superalloys
[NASA-CASE-LEW-12906-1] c26 N77-32279

TUNING
Active tuned circuits for microelectronic construction
[NASA-CASE-GSC-11340-1] c10 N72-33230
Microwave generator using Gunn effect for magnetic tuning
[NASA-CASE-NPO-12106] c09 N73-15235

TUNNEL DIODES
Low power drain transistor feedback circuit
[NASA-CASE-XGS-04999] c09 N69-24317

TUNNELS

Deployable flexible tunnel
[NASA-CASE-NFS-22636-1] c37 N76-22540

TURBINE BLADES
Transpiration cooled turbine blade made from metallic or ceramic wires
[NASA-CASE-XLE-00020] c15 N70-33226
Modification and improvement of turbine blades for maximum cooling efficiency
[NASA-CASE-XLE-00092] c15 N70-33264
Preparation of nickel alloys for jet turbine blades operating at high temperatures
[NASA-CASE-XLE-00151] c17 N70-33283
External device for liquid spray cooling of gas turbine blades
[NASA-CASE-XLE-00037] c28 N70-33372
Apparatus for liquid spray cooling of turbine blades
[NASA-CASE-XLE-00027] c33 N71-29152
Process for welding compressor and turbine blades to rotors and discs of jet engines
[NASA-CASE-LEW-10533-1] c15 N73-28515
Leading edge protection for composite blades
[NASA-CASE-LEW-12550-1] c24 N77-19170
Gas path seal
[NASA-CASE-LEW-12131-2] c07 N78-31103

TURBINE ENGINES
High speed, self-acting shaft seal --- for use in turbine engines
[NASA-CASE-LEW-11274-1] c37 N75-21631
Dual cycle aircraft turbine engine
[NASA-CASE-LAR-11310-1] c07 N77-28118
Gas path seal
[NASA-CASE-LEW-12131-2] c07 N78-31103
Composite seal for turbomachinery --- backings for turbine engine shrouds
[NASA-CASE-LEW-12131-1] c37 N79-18318

TURBINE PUMPS
Pulsed energy power system for application of combustible gases to turbine controlling ac voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
Portable cryogenic cooling system design including turbine pump, cooling chamber, and atomizer
[NASA-CASE-NPO-10467] c23 N71-26654
Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502

TURBINE WHEELS
Locking device for retaining turbine rotor blades on turbine wheel
[NASA-CASE-XNP-00816] c28 N71-28928
Apparatus for welding blades to rotors
[NASA-CASE-LEW-10533-2] c37 N74-11300
Blade retainer assembly
[NASA-CASE-LEW-12608-1] c07 N77-27116

TURBINES
Liquid-vapor interface seal design for turbine rotating shafts including helical and molecular pumps and liquid cooling of mercury vapor
[NASA-CASE-XNP-02862-1] c15 N71-26294

TURBOCOMPRESSORS
Multistage multiple reentry axial flow reaction turbine with reverse flow reentry ducting
[NASA-CASE-XLE-00170] c15 N70-36412
Apparatus and method for reducing thermal stress in a turbine rotor
[NASA-CASE-LEW-12232-1] c07 N79-10057

TURBOFAN ENGINES
Supersonic fan blading --- noise reduction in turbofan engines
[NASA-CASE-LEW-11402-1] c07 N74-28226
Noise suppressor --- for turbofan engine by incorporating annular acoustically porous elements in exhaust and inlet ducts
[NASA-CASE-LAR-11141-1] c07 N74-32418
Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131
Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055

TURBOFANS
Dual output variable pitch turbofan actuation system
[NASA-CASE-LEW-12419-1] c07 N77-14025
Reverse pitch fan with divided splitter
[NASA-CASE-LEW-12760-1] c07 N77-17059

TURBOJET ENGINES

- Telescoping-spike supersonic nozzle for turbojet or ramjet engines
[NASA-CASE-XLE-00005] c28 N70-39899
- Design and development of gas turbine combustion unit with nozzle guide vanes for introducing diluent air into combustion gases
[NASA-CASE-XLE-103477-1] c28 N71-20330
- Reduction of nitric oxide emissions from a combustor
[NASA-CASE-ARC-10814-2] c25 N77-31260

TURBOMACHINE BLADES

- Platform for a swing root turbomachinery blade
[NASA-CASE-LEW-12312-1] c07 N77-32148

TURBOMACHINERY

- Blade vibration damping pins for turbomachinery
[NASA-CASE-XLE-00155] c28 N71-29154

TURBOSHAPTS

- Remote-reading torque meter for use where high horsepower are transmitted at high rotational speeds
[NASA-CASE-XLE-00503] c14 N70-34818
- High speed, self-acting shaft seal --- for use in turbine engines
[NASA-CASE-LEW-11274-1] c37 N75-21631

TURBULENCE METERS

- Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229

TURBULENT FLOW

- Exhaust flow deflector --- for ducted gas flow
[NASA-CASE-LAR-11570-1] c34 N76-18364
- System for measuring Reynolds in a turbulently flowing fluid --- signal processing
[NASA-CASE-ARC-10755-2] c34 N76-27517
- System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ARC-10974-1] c34 N77-27345
- Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure noise levels during wind tunnel tests
[NASA-CASE-LAR-12261-1] c02 N79-16805

TURBULENT WAKES

- Vortex attenuation method --- for multi-engine aircraft
[NASA-CASE-LAR-12034-1] c02 N77-22045

TURNSTILE ANTENNAS

- Flexible turnstile antenna system for reducing nutation in spin-oriented satellites
[NASA-CASE-XMP-00442] c31 N71-10747
- Broadband modified turnstile antenna for use in space tracking and communications
[NASA-CASE-HSC-12209] c09 N71-24842
- Turnstile slot antenna
[NASA-CASE-GSC-11428-1] c32 N74-20864
- Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10994-1] c33 N76-14372

TURRET

- Indexing mechanism for cathode array substitution in electron beam tube
[NASA-CASE-NPO-10625] c09 N71-26182

TWO BODY PROBLEM

- Instrument for measuring potentials on two dimensional electric field plot
[NASA-CASE-XLA-08493] c10 N71-19421

TWO DIMENSIONAL BODIES

- Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751

TWO PHASE FLOW

- Solenoid two-step valve for bipropellant flow rate control to rocket engine
[NASA-CASE-XMS-04890-1] c15 N70-22192
- Two phase fluid pressurization system for propellant tank
[NASA-CASE-HSC-12390] c27 N71-29155
- Two-phase flow system with discrete, impinging two-phase jets
[NASA-CASE-NPO-11556] c12 N72-25292
- Method and turbine for extracting kinetic energy from a stream of two-phase fluid
[NASA-CASE-NPO-14130-1] c34 N79-20335

TYPEWRITERS

- Guide for a typewriter
[NASA-CASE-HPS-15218-1] c37 N77-19457

U

U BENDS

- Elbow forming in jacketed pipes while maintaining separation between core shape and jacket pipes
[NASA-CASE-XNP-10475] c15 N71-24679
- U shaped heated tube for distillation and purification of liquid metals
[NASA-CASE-XNP-08124-2] c06 N73-13129

ULCERS

- Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-1] c52 N78-11692
- Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-2] c52 N79-14755

ULLAGE

- Radiation source and detection system for measuring amount of liquid inside tanks independently of liquid configuration
[NASA-CASE-HSC-12280] c27 N71-16348

ULTRAHIGH FREQUENCIES

- Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372
- Dual band combiner for horn antenna
[NASA-CASE-NPO-14519-1] c32 N79-17068

ULTRAHIGH VACUUM

- Solid lubricant applied to porous roller bearings prior to use in ultrahigh vacuum
[NASA-CASE-XLE-09527] c15 N71-17688
- Calibration of vacuum gauges for measuring total and partial pressures in ultrahigh vacuum region
[NASA-CASE-XGS-07752] c14 N73-30390
- Ultrahigh vacuum gauge with two collector electrodes
[NASA-CASE-LAR-02743] c14 N73-32324
- In situ transfer standard for ultrahigh vacuum gage calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092

ULTRASONIC AGITATION

- Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
[NASA-CASE-NPO-11213] c15 N73-20514

ULTRASONIC FLAW DETECTION

- Length mode piezoelectric ultrasonic transducer for inspection of solid objects
[NASA-CASE-HSC-19672-1] c38 N79-14398

ULTRASONIC RADIATION

- Ultrasonic biomedical measuring and recording apparatus --- for recording motion of internal organs such as heart valves
[NASA-CASE-ARC-10597-1] c52 N74-20726
- Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835
- EKG and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619

ULTRASONIC TESTS

- Ultrasonic scanner for radial and flat panels
[NASA-CASE-HPS-20335-1] c35 N74-10415
- Ultrasonic scanning system for in-place inspection of brazed tube joints
[NASA-CASE-HPS-20767-1] c38 N74-15130
- Method and apparatus for nondestructive testing --- using high frequency arc discharges
[NASA-CASE-HPS-21233-1] c38 N74-15395
- CW ultrasonic bolt tensioning monitor
[NASA-CASE-LAR-12016-1] c39 N78-15512

ULTRASONIC WAVE TRANSDUCERS

- Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
[NASA-CASE-NPO-11213] c15 N73-20514
- Ultrasonic bone densitometer
[NASA-CASE-HPS-20994-1] c35 N75-12271
- Reference apparatus for medical ultrasonic transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760
- Ultrasonic calibration device --- for producing changes in acoustic attenuation and phase velocity
[NASA-CASE-LAR-11435-1] c35 N76-15432
- A phase insensitive ultrasonic transducer --- annealing cadmium sulfide crystals
[NASA-CASE-LAR-12304-1] c71 N78-29871
- Coupling apparatus for ultrasonic medical diagnostic system

ULTRASONIC WELDING

SUBJECT INDEX

[NASA-CASE-NPO-13935-1] c52 N79-14751
ULTRASONIC WELDING
 Ultrasonically bonded valve assembly
 [NASA-CASE-NPO-13360-1] c37 N75-25185
ULTRASONICS
 Ultrasonic wrench for applying vibratory energy
 to mechanical fasteners
 [NASA-CASE-NFS-20586] c15 N71-17686
 Pseudo continuous wave instrument --- ultrasonics
 [NASA-CASE-LAR-12260-1] c35 N79-10390
ULTRAVIOLET FILTERS
 Ultraviolet filter of thorium fluoride and
 cryolite on quartz base
 [NASA-CASE-XNP-02340] c23 N69-24332
 Development of ultraviolet resonance lamp with
 improved transmission of radiation
 [NASA-CASE-ARC-10030] c09 N71-12521
ULTRAVIOLET LASERS
 Stabilization of He2(a 3 Sigma u+ molecules in
 liquid helium by optical pumping for vacuum UV
 laser 6
 [NASA-CASE-NPO-13993-1] c72 N79-13826
ULTRAVIOLET RADIATION
 Ultraviolet radiation resistant alkali-metal
 silicate coatings for temperature control of
 spacecraft
 [NASA-CASE-IGS-04119] c18 N69-39979
 Development of ultraviolet resonance lamp with
 improved transmission of radiation
 [NASA-CASE-ARC-10030] c09 N71-12521
 Gas leak detection in evacuated systems using
 ultraviolet radiation probe
 [NASA-CASE-ERC-10034] c15 N71-24896
 Phototropic composition of matter with
 sensitivity to ultraviolet light and usable
 for producing positive photographic images
 [NASA-CASE-IGS-03736] c14 N72-22443
 Transmitting and reflecting diffuser --- for
 ultraviolet light
 [NASA-CASE-LAR-10385-2] c70 N74-13436
 Ultraviolet and thermally stable polymer
 compositions
 [NASA-CASE-ARC-10592-1] c27 N74-21156
 Light shield and cooling apparatus --- high
 intensity ultraviolet lamp
 [NASA-CASE-LAR-10089-1] c34 N74-23066
 Flame detector operable in presence of proton
 radiation
 [NASA-CASE-NFS-21577-1] c19 N74-29410
 Method and apparatus for generating coherent
 radiation in the ultra-violet region and above
 by use of distributed feedback
 [NASA-CASE-NPO-13346-1] c36 N76-29575
 Ultraviolet and thermally stable polymer
 compositions
 [NASA-CASE-ARC-10592-2] c27 N76-32315
ULTRAVIOLET REFLECTION
 Composition and production method of alkali
 metal silicate paint with ultraviolet
 reflection properties
 [NASA-CASE-IGS-04799] c18 N71-24183
 Ultraviolet light reflective coating
 [NASA-CASE-GSC-11786-1] c24 N76-24363
 Transmitting and reflecting diffuser --- using
 ultraviolet grade fused silica coatings
 [NASA-CASE-LAR-10385-3] c74 N78-15879
ULTRAVIOLET SPECTRA
 Ultraviolet chromatographic detector for
 quantitative and qualitative analysis of
 compounds
 [NASA-CASE-BQN-10756-1] c14 N72-25428
ULTRAVIOLET SPECTROMETERS
 Concave grating spectrometer for use in near and
 vacuum ultraviolet regions
 [NASA-CASE-IGS-01036] c14 N70-40003
 Telespectrograph for analyzing upper atmosphere
 by tracking bodies reentering atmosphere at
 high velocities
 [NASA-CASE-XLA-03273] c14 N71-18699
UMBILICAL CONNECTORS
 Umbilical separator for rockets
 [NASA-CASE-XNP-00425] c11 N70-38202
 Remotely actuated quick disconnect mechanism for
 umbilical cables
 [NASA-CASE-XLA-00711] c03 N71-12258
 Remotely actuated quick disconnect for tubular
 umbilical conduits used to transfer fluids
 from ground to rocket vehicle
 [NASA-CASE-XLA-01396] c03 N71-12259

Internal and external serpentine devices for
 performing physical operations around orbital
 space stations
 [NASA-CASE-XNP-05344] c31 N71-16345
 Breakaway multiwire electrical cable connector
 with particular application for umbilical type
 cables
 [NASA-CASE-NPO-11140] c15 N72-17455
 Gas operated quick disconnect coupling for
 umbilical connectors
 [NASA-CASE-NPO-11202] c15 N72-25450
 Deployable flexible tunnel
 [NASA-CASE-NFS-22636-1] c37 N76-22540
UMBILICAL TOWERS
 Emergency escape cabin system for launch towers
 [NASA-CASE-XRS-02342] c05 N71-11199
UNDERWATER ENGINEERING
 Ejectable underwater sound source recovery
 assembly
 [NASA-CASE-LAR-10595-1] c35 N74-16135
UNDERWATER TESTS
 Pressure regulator for space suit worn
 underwater to simulate space environment for
 testing and experimentation
 [NASA-CASE-NFS-20332] c05 N72-20097
 Underwater space suit pressure control regulator
 [NASA-CASE-NFS-20332-2] c05 N73-25125
UNIFORM FLOW
 Wind tunnel flow generation section
 [NASA-CASE-ARC-10710-1] c09 N75-12969
UNLOADING
 Bootstrap unloading circuits for sampling
 transducer voltage sources without drawing
 current
 [NASA-CASE-XNP-09768] c09 N71-12516
UNMANNED SPACECRAFT
 Device which separates and screens particles of
 soil samples for vidicon viewing in vacuum and
 reduced gravity environments
 [NASA-CASE-XNP-09770-3] c11 N71-27036
UPPER ATMOSPHERE
 Telespectrograph for analyzing upper atmosphere
 by tracking bodies reentering atmosphere at
 high velocities
 [NASA-CASE-XLA-03273] c14 N71-18699
 Development and operation of apparatus for
 sampling particulates in gases in upper
 atmosphere
 [NASA-CASE-BQN-10037-1] c14 N73-27376
 Rocket having barium release system to create
 ion clouds in the upper atmosphere
 [NASA-CASE-LAR-10670-2] c15 N74-27360
URANIUM 235
 Isotope separation using metallic vapor lasers
 [NASA-CASE-NPO-13550-1] c36 N77-26477
UREAS
 A reverse osmosis membrane of high urea
 rejection properties
 [NASA-CASE-ARC-10980-1] c27 N77-18265
 Aldehyde-containing urea-absorbing polysaccharides
 [NASA-CASE-NPO-13620-1] c27 N77-30236
URINALYSIS
 Automated fluid chemical analyzer for
 microchemical analysis of small quantities of
 liquids by use of selected reagents and
 analyzer units
 [NASA-CASE-XNP-09451] c06 N71-26754
 Enzymatic luminescent bioassay method for
 determining bacterial levels in urine
 [NASA-CASE-GSC-11092-2] c04 N73-27052
 Automatic device for assaying urine on bacterial
 adenosine triphosphate content
 [NASA-CASE-GSC-11169-2] c05 N73-32011
 Determination of antimicrobial susceptibilities
 on infected urines without isolation
 [NASA-CASE-GSC-12046-1] c52 N79-14750
URINATION
 Open type urine receptacle with tubular housing
 [NASA-CASE-HSC-12324-1] c05 N72-22093
 Prosthetic urinary sphincter
 [NASA-CASE-NFS-23717-1] c52 N79-14756
URINE
 Urine collection device
 [NASA-CASE-HSC-16433-1] c52 N78-27750
UROLOGY
 Prosthetic urinary sphincter
 [NASA-CASE-NFS-23717-1] c52 N79-14756
UTERUS
 A cervix-to-rectum measuring device in a

radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796

V

V GROOVES

Vee-notching device --- with adjustable carriage
[NASA-CASE-NFS-20730-1] c39 N74-13131
Complementary DMOS-V MOS integrated circuit structure
[NASA-CASE-GSC-12190-1] c33 N79-12321

VACANCIES (CRYSTAL DEFECTS)

Bimetallic junctions
[NASA-CASE-LEW-11573-1] c26 N77-28265

VACUUM

Hole mobility of deposited semiconductor films in vacuum utilizing thermal gradient
[NASA-CASE-IKS-04614] c15 N69-21460
Operating properties of superconducting magnet in vacuum environment
[NASA-CASE-XNP-06503] c23 N71-29049
Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance
[NASA-CASE-LEW-12174-2] c35 N79-14386

VACUUM APPARATUS

Null-type vacuum microbalance for measuring minute mechanical displacements
[NASA-CASE-YAC-00472] c15 N70-40180
Sealing evacuation port and evacuating vacuum container such as space jackets
[NASA-CASE-XNP-03290] c15 N71-23256
Apparatus for determining volatile condensable material present in polymeric products
[NASA-CASE-XNP-09699] c06 N71-24607
Oil trap for preventing diffusion pump backstreaming into evacuated system
[NASA-CASE-GSC-10518-1] c15 N72-22489
Inductance device with vacuum insulation and materials of low gas entrapping capability
[NASA-CASE-LEW-10330-1] c09 N72-27226
Development of apparatus for producing metal powder particles of controlled size
[NASA-CASE-XLE-06461-2] c17 N72-28535
Portable vacuum probe surface sampler for sampling large surface areas with relatively light loading densities of microorganisms
[NASA-CASE-LAR-10623-1] c14 N73-30395
Servo valve
[NASA-CASE-LAR-11643-1] c37 N75-13268
Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612
Apparatus for positioning modular components on a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554

VACUUM CHAMBERS

High-vacuum condenser tank for testing ion rocket engines
[NASA-CASE-XLE-00168] c11 N70-33278
Portable electron beam welding chamber
[NASA-CASE-LEW-11531] c15 N71-14932
Space environmental work simulator with portions of space suit mounted to vacuum chamber wall
[NASA-CASE-XNP-07488] c11 N71-18773
Ionization control system design for monitoring separately located ion gage pressures on vacuum chambers
[NASA-CASE-XLE-00787] c14 N71-21090
Coherent light beam device and method for measuring gas density in vacuum chambers
[NASA-CASE-XER-11203] c14 N71-28994
Transferring liquid nitrogen through vacuum chamber to cryopanel
[NASA-CASE-LAR-10031] c15 N72-22484
Vacuum chamber with scale model of rocket engine base area of space vehicle
[NASA-CASE-NFS-20620] c11 N72-27262
Packless valve for use with evacuation chamber with adapter for attachment to vacuum line and vacuum pump
[NASA-CASE-LAR-10061-1] c15 N72-31483
Apparatus for analyzing gas samples in containers including vacuum chamber, mass spectrometer, and gas chromatography
[NASA-CASE-GSC-10903-1] c14 N73-12444
Design and development of test stand system for supporting test items in vacuum chamber
[NASA-CASE-NFS-21362] c11 N73-20267

Atomic hydrogen storage method and apparatus --- cryotrapping and magnetic field strength
[NASA-CASE-LEW-12081-2] c72 N78-19907

VACUUM DEPOSITION

Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
[NASA-CASE-ERC-10120] c26 N69-33482
Describing apparatus used in vacuum deposition of thin film inductive windings for spacecraft microcircuitry
[NASA-CASE-XNP-01667] c15 N71-17647
Sputter proof evaporant source design for use in vacuum deposition of solid thin films on substrates
[NASA-CASE-XNP-06065] c15 N71-20395
Device for high vacuum film deposition with electromagnetic ion steering
[NASA-CASE-NFO-10331] c09 N71-26701
Preparation of dielectric coating of variable dielectric constant by plasma polymerization
[NASA-CASE-ARC-10892-2] c27 N79-14214

VACUUM FURNACES

Apparatus for inserting and removing specimens from high temperature vacuum furnaces
[NASA-CASE-LAR-10841-1] c31 N74-27900

VACUUM GAGES

Simulating operation of thermopile vacuum gage tube at high and low pressures
[NASA-CASE-XLA-02758] c14 N71-18481
Calibration of vacuum gauges for measuring total and partial pressures in ultrahigh vacuum region
[NASA-CASE-XGS-07752] c14 N73-30390
Ionization gage for measuring ultrahigh vacuum levels
[NASA-CASE-XLA-05087] c14 N73-30391
In situ transfer standard for ultrahigh vacuum gage calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092

VACUUM MELTING

Electric furnace for vacuum and zero gravity melting of high melting point materials during earth orbit
[NASA-CASE-NFS-20710] c11 N72-23215

VACUUM SYSTEMS

Shrink-fit vacuum system gas valve
[NASA-CASE-XGS-00587] c15 N70-35087
Leakproof soft metal seal for use in very high vacuum systems operating at cryogenic temperatures
[NASA-CASE-XGS-02441] c15 N70-41629
Describing hot filament type Bayard-Alpert ionization gage with ion collector buried or removed from grid structure
[NASA-CASE-XLA-07424] c14 N71-18482
Describing sorption vacuum trap having housing with group of reentrant wall portions projecting into internal gas-pervious container filled with gas and vapor sorbent material
[NASA-CASE-XER-09519] c14 N71-18483
Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612

VACUUM TUBES

Integrated structure vacuum tube
[NASA-CASE-ARC-10445-1] c31 N76-31365

VALVE

High impact pressure regulator having minimum number of lightweight movable elements
[NASA-CASE-NFO-10175] c14 N71-18625

VALVES

Actuator using compressed gas as driving force to control valve handling large liquid flows
[NASA-CASE-XHQ-01208] c15 N70-35409
Two component valve assembly for cryogenic liquid transfer regulation
[NASA-CASE-XLE-00397] c15 N70-36492
High pressure four-way valve with O ring adapted to pass across inlet port
[NASA-CASE-XNP-00214] c15 N70-36908
Reinforcing beam system for highly flexible diaphragms in valves or pressure switches
[NASA-CASE-XNP-01962] c32 N70-41370
Multiple vortex amplifier system as fluid valve
[NASA-CASE-XNP-04709] c15 N71-15609
Throttle valve for regulating fluid flow volume
[NASA-CASE-XNP-09698] c15 N71-18580
Development and characteristics of high pressure control valve

- [NASA-CASE-MSC-11010] c15 N71-19485
Valve seat with resilient support ring for venting valves subjected to high pressure sealing loads
[NASA-CASE-IKS-02582] c15 N71-21234
Positive locking check valve for stopping reversed flow
[NASA-CASE-XMS-09310] c15 N71-22706
Valve assembly for controlling simultaneously more than one fluid flow, and having stable qualities under loads
[NASA-CASE-IHS-05890] c09 N71-23191
Segmented sealing surface in valve seat
[NASA-CASE-NPO-10606] c15 N72-25451
Packless valve for use with evacuation chamber with adapter for attachment to vacuum line and vacuum pump
[NASA-CASE-LAR-10061-1] c15 N72-31483
Flow control valve --- for high temperature fluids
[NASA-CASE-NPO-11951-1] c37 N74-21065
Airlock
[NASA-CASE-MPS-20922-1] c18 N74-22136
Reciprocating engines
[NASA-CASE-MSC-16239-1] c37 N78-11399
A quartz ball valve
[NASA-CASE-NPO-14473-1] c37 N79-10427
- VANES**
Design and characteristics of device for sensing solar radiation and providing spacecraft attitude control to maintain direction with respect to incident radiation
[NASA-CASE-XNP-05535] c14 N71-23040
Rotary vane attenuator with two stators and intermediary rotor, using resistive and orthogonally disposed cards
[NASA-CASE-NPO-11418-1] c14 N73-13420
- VAPOR DEPOSITION**
Deposition method for epitaxial beta SiC films having high degree of crystallographic perfection
[NASA-CASE-ERC-10120] c26 N69-33482
Device for producing high purity silicon carbide on carbon base by hydrogen reduction of silicon tetrachloride
[NASA-CASE-XLA-02057] c26 N70-40015
Water content in vapor deposition atmosphere for forming n-type and p-type junctions of zinc doped gallium arsenide
[NASA-CASE-XNP-01961] c26 N71-29156
Vapor deposition method for forming metallized tungsten contacts on silicon substrates
[NASA-CASE-GSC-10695-1] c09 N72-25259
Means of vapor deposition using electric current and evaporator filament
[NASA-CASE-LAR-10541-1] c15 N72-32487
Deposition of alloy films --- on irregularly shaped metal object
[NASA-CASE-LEW-11262-1] c27 N74-13270
System for depositing thin films
[NASA-CASE-MPS-20775-1] c31 N75-12161
Vapor deposition apparatus --- semiconductors and gallium arsenides
[NASA-CASE-BQN-10462] c25 N75-29192
- VAPOR PHASES**
Method and feed system for separating and orienting liquid and vapor phases of liquid propellants in zero gravity environment
[NASA-CASE-XLE-01182] c27 N71-15635
Gallium arsenide solar cell preparation by surface deposition of cuprous iodide on thin n-type polycrystalline layers and heating in iodine vapor
[NASA-CASE-XNP-01960] c09 N71-23027
Mixed liquid and vapor phase analyzer design with thermocouples for relative heat transfer measurement
[NASA-CASE-NPO-10691] c14 N71-26199
Electronic recording system for spatial mass distribution of liquid rocket propellant droplets or vapors ejected from high velocity nozzles
[NASA-CASE-NPO-10185] c10 N71-26339
- VAPOR PRESSURE**
Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
[NASA-CASE-XLE-00288] c15 N70-34247
Vapor-liquid separator design with vapor driven pump for separated liquid pumping for application in propellant transfer
[NASA-CASE-XNP-04042] c15 N71-23023
- VAPOR TRAPS**
Describing sorption vacuum trap having housing with group of reentrant wall portions projecting into internal gas-pervious container filled with gas and vapor sorbent material
[NASA-CASE-XER-09519] c14 N71-18483
- VAPORIZERS**
Vapor generating boiler system for turbine motor
[NASA-CASE-XLE-00785] c33 N71-16104
- VAPORIZING**
Apparatus and process for volumetrically dispensing reagent quantities of volatile chemicals for small batch reactions
[NASA-CASE-NPO-10070] c15 N71-27372
Development of method for controlling vapor content of gas
[NASA-CASE-NPO-10633] c03 N72-28025
- VARACTOR DIODE CIRCUITS**
Phase modulator with tuned variable length electrical lines including coupling and varactor diode circuits
[NASA-CASE-MSC-13201-1] c07 N71-28429
- VARACTOR DIODES**
Varactor microwave frequency mixing circuit
[NASA-CASE-XGS-02171] c09 N69-24324
Multiple varactor for generating high frequencies with high power and high conversion efficiency
[NASA-CASE-XNP-04958-1] c10 N71-26414
Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660
- VARIABLE CYCLE ENGINES**
Dual cycle aircraft turbine engine
[NASA-CASE-LAR-11310-1] c07 N77-28118
Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384
Variable mixer propulsion cycle
[NASA-CASE-LEW-12917-1] c07 N78-18067
- VARIABLE GEOMETRY STRUCTURES**
Aerospace configuration with low and high aspect ratio variability for high and low speed flight
[NASA-CASE-XLA-00142] c02 N70-33286
Variable geometry wind tunnel for testing aircraft models at subsonic speeds
[NASA-CASE-XLA-07430] c11 N72-22246
- VARIABLE PITCH PROPELLERS**
Dual output variable pitch turbofan actuation system
[NASA-CASE-LEW-12419-1] c07 N77-14025
Impact absorbing blade mounts for variable pitch blades
[NASA-CASE-LEW-12313-1] c37 N78-10468
- VARIABLE SWEEP WINGS**
Variable sweep wing configuration for supersonic aircraft
[NASA-CASE-XLA-00230] c02 N70-33255
Variable aspect ratio and variable sweep delta wing planforms for supersonic aircraft
[NASA-CASE-XLA-00221] c02 N70-33266
Supersonic aircraft configuration providing for variable aspect ratio and variable sweep wings
[NASA-CASE-XLA-00166] c02 N70-34178
Supersonic aircraft variable sweep wing planform for varying aspect ratio
[NASA-CASE-XLA-00350] c02 N70-38011
Development and characteristics of variable sweep wing control system for supersonic aircraft
[NASA-CASE-XLA-03659] c02 N71-11041
Design of dual fuselage aircraft with pivoting wing and horizontal stabilizer to permit yawing of wing in flight for high speed operation
[NASA-CASE-ARC-10470-1] c02 N73-76005
- VARIABLE THRUST**
Variable thrust ion engine using thermal decomposition of solid cesium compound to produce propulsive vapor
[NASA-CASE-XNP-00923] c28 N70-36802
Continuous variation of propellant flow and thrust by application of liquid foam flow theory to injection orifice
[NASA-CASE-XLE-00177] c28 N70-40367
Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055

VARIATIONS

Gearing system for eliminating backlash and filtering input torque fluctuations from high inertia load
[NASA-CASE-XGS-04227] c15 N71-21744

VECTOR ANALYSIS

Development of two force component measuring device
[NASA-CASE-XAC-04886-1] c14 N71-20439

VECTOCARDIOGRAPHY

Electromedical garment, applying vectrocardiologic type electrodes to human torsos for data recording during physical activity
[NASA-CASE-XPR-10856] c05 N71-11189

VEGETATION GROWTH

Rotary plant growth accelerating apparatus --- weightlessness
[NASA-CASE-ABC-10722-1] c51 N75-25503
Remote sensing of vegetation and soil using microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529

VEHICLE WHEELS

Resilient vehicle wheel for lunar surface travel
[NASA-CASE-NFS-20400] c31 N71-18611
Resilient wheel design with woven wire tire and abrasive treads for lunar surface vehicles
[NASA-CASE-NFS-13929] c15 N71-27091
Omnidirectional wheel
[NASA-CASE-NFS-21309-1] c37 N74-18125
Two speed drive system --- mechanical device for changing speed on rotating vehicle wheel
[NASA-CASE-NFS-20645-1] c37 N74-23070
Fifth wheel
[NASA-CASE-FRC-10081-1] c37 N77-14477
Improved tire/wheel concept
[NASA-CASE-LAR-11695-1] c37 N78-22374

VEHICLES

Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-2] c37 N78-27424

VEHICULAR TRACKS

An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas
[NASA-CASE-NPO-14395-1] c37 N79-12446

VELOCITY

Velocity limiting safety system for motor driven research vehicle
[NASA-CASE-XLA-07473] c15 N71-24895

VELOCITY MEASUREMENT

Particle detector for measuring micrometeoroid velocity in space
[NASA-CASE-XLA-00495] c14 N70-41332
Superconductive accelerometer employing variable force principle to determine acceleration of bodies
[NASA-CASE-XMP-01099] c14 N71-15969
Device for determining acceleration of gravity by interferometric measurement of travel of falling body
[NASA-CASE-XMP-05844] c14 N71-17587
Describing laser Doppler velocimeter for measuring mean velocity and turbulence of fluid flow
[NASA-CASE-NFS-20386] c21 N71-19212
Momentum-velocity analyzer for measuring minute space particles
[NASA-CASE-XMS-04201] c14 N71-22990
Development of combined velocimeter and accelerometer based on color changes in liquid crystalline material subjected to shear stresses
[NASA-CASE-BRC-10292] c14 N72-25410
Instrument for measuring magnitude and direction of flow velocity in flow field
[NASA-CASE-LAR-10855-1] c14 N73-13415
Doppler shift system --- system for measuring velocities of radiating particles
[NASA-CASE-BQN-10740-1] c72 N74-19310
Tachometer
[NASA-CASE-NFS-23175-1] c35 N77-30436
Velocity measurement system
[NASA-CASE-NFS-23363-1] c35 N78-32396
Fluid velocity measuring device
[NASA-CASE-LAR-11729-1] c34 N79-12359

VELOCITY MODULATION
Selector mechanism for mechanical separation and discrimination of high velocity molecular particles
[NASA-CASE-XLE-01533] c11 N71-10777

Describing device for velocity control of electromechanical drive mechanism of scanning mirror of interferometer
[NASA-CASE-XGS-03532] c14 N71-17627

VENTILATION

Protective garment ventilation system
[NASA-CASE-XMS-04928] c54 N78-17679
Protective garment ventilation system
[NASA-CASE-XMS-04928-1] c54 N79-21765

VENTILATORS

Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761

VENTING

Fuel tank pressure-relief device for venting cryogenic liquid vapors through tubes with porous plug
[NASA-CASE-XLE-00288] c15 N70-34247
Venting device for liquid propellant storage tank using magnetic field to separate liquid and gaseous phases
[NASA-CASE-XLE-01449] c15 N70-41646
Valve seat with resilient support ring for venting valves subjected to high pressure sealing loads
[NASA-CASE-XKS-02582] c15 N71-21234
Venting device for pressurized space suit helmet to eliminate vomit expelled by crewmen
[NASA-CASE-XMS-09652-1] c05 N71-26333
Solid propellant rocket engine with venting system to control effective nozzle throat area
[NASA-CASE-XNP-03282] c28 N72-20758

VENUS (PLANET)

Space simulator with uniform test region radiation distribution, adapted to simulate Venus solar radiations
[NASA-CASE-XNP-00459] c11 N70-38675

VERTICAL FLIGHT

Aircraft indicator for pilot control of takeoff roll, climbout path and verticle flight path in poor visibility conditions
[NASA-CASE-XLA-00487] c14 N70-40157

VERTICAL LANDING

Vertically descending flight vehicle landing gear for rough terrain
[NASA-CASE-XMP-01174] c02 N70-41589

VERTICAL TAKEOFF AIRCRAFT

Mechanical stabilization system for VTOL aircraft
[NASA-CASE-XLA-06339] c02 N71-13422
Development of attitude control system for vertical takeoff aircraft using reaction nozzles displaced from various axes of aircraft
[NASA-CASE-XAC-08972] c02 N71-20570

VERY HIGH FREQUENCIES

VHF/UHF parasitic probe antenna for spacecraft communication
[NASA-CASE-XKS-09340] c07 N71-24614

VESTS

Lightweight life preserver without fastening devices
[NASA-CASE-XMS-00864] c05 N70-36493

VIBRATION

Three stage motion restraining mechanism for restraining and damping three dimensional vibrational movement of gimballed package during launch of spacecraft
[NASA-CASE-GSC-10306-1] c15 N71-24694
Vibration control of flexible bodies in steady accelerating environment
[NASA-CASE-LAR-10106-1] c15 N71-27169

VIBRATION DAMPING

Mercury filled pendulum damper for controlling bending vibration induced by wind effects
[NASA-CASE-LAR-10274-1] c14 N71-17626
Digital filter for reducing jitter in digital control systems
[NASA-CASE-NPO-11088] c08 N71-29034
Blade vibration damping pins for turbomachinery
[NASA-CASE-XLE-00155] c28 N71-29154

VIBRATION EFFECTS

Electromagnetic energy detection by thermal sensor with vibrating electrode
[NASA-CASE-XAC-10768] c09 N71-18830
Development of ultrasonic radiation equipment for removing material from host surface and vacuum apparatus for recovery of material
[NASA-CASE-NPO-11213] c15 N73-20514
Development of optical system for detecting defective components in rotating machinery with emphasis on bearing assemblies

VIBRATION ISOLATORS

SUBJECT INDEX

[NASA-CASE-KSC-10752-1] c15 N73-27407
Spherical bearing --- to reduce vibration effects
[NASA-CASE-MFS-23447-1] c37 N79-11404

VIBRATION ISOLATORS
Shock and vibration damping device using
temperature sensitive solid amorphous polymers
[NASA-CASE-XAC-11225] c14 N69-27486
Miniature vibration isolator utilizing elastic
tubing material
[NASA-CASE-XLA-01019] c15 N70-40156
Vibration damping system operating in low vacuum
environment for spacecraft mechanisms
[NASA-CASE-XMS-01620] c23 N71-15673
Hermetically sealed vibration damper design for
use in gimbal assembly of spacecraft inertial
guidance system
[NASA-CASE-MSC-10959] c15 N71-26243
Tuned damped vibration absorber for mass
vibrating in more than one degree of freedom
for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006
Vibration isolation system, using coaxial
helical compression springs
[NASA-CASE-NPO-11012] c15 N72-11391
Thrust-isolating mounting --- characteristics of
support for loads mounted in spacecraft
[NASA-CASE-MFS-21680-1] c18 N74-27397
Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573
Shock isolator for operating a diode laser and
closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515
Thermal insulation attaching means --- adhesive
bonding of felt vibration insulators under
ceramic tiles
[NASA-CASE-MSC-12619-2] c27 N79-12221

VIBRATION MEASUREMENT
Development of system for measuring damping
characteristics of structure or system
subjected to random forces or influences
[NASA-CASE-ARC-10154-1] c14 N72-22440
Method and apparatus for vibration analysis
utilizing the Mossbauer effect
[NASA-CASE-XMP-05882] c35 N75-27329
Displacement probes with self-contained exciting
medium
[NASA-CASE-LAR-11690-1] c35 N78-31406

VIBRATION METERS
Fiber optic transducers for monitoring and
analysis of vibration in aerospace vehicles
and onboard equipment
[NASA-CASE-XMP-02433] c14 N71-10616

VIBRATION MODE
Function generators for producing complex
vibration mode patterns used to identify
vibration mode data
[NASA-CASE-LAR-10310-1] c10 N73-20253

VIBRATION SIMULATORS
Equipment for vibration testing of assemblies,
components, and other articles
[NASA-CASE-GSC-11302-1] c14 N73-13416

VIBRATION TESTS
Electronic detection system for peak
acceleration limits in vibrational testing of
spacecraft components
[NASA-CASE-NPO-10556] c14 N71-27185
Fixture for supporting articles during vibration
tests comprising integral annular unit
[NASA-CASE-MFS-20523] c14 N72-27412
Equipment for vibration testing of assemblies,
components, and other articles
[NASA-CASE-GSC-11302-1] c14 N73-13416
Multi-axes vibration device for making vibration
tests along orthogonal axes of test specimen
[NASA-CASE-MFS-20242] c14 N73-19421

VIBRATIONAL SPECTRA
Tuned damped vibration absorber for mass
vibrating in more than one degree of freedom
for use with wind tunnel models
[NASA-CASE-LAR-10083-1] c15 N71-27006

VIDEO COMMUNICATION
Circuitry for generating sync signals in FM
communication systems including video
information
[NASA-CASE-XNP-10830] c07 N71-11281
Monitoring circuit design for sampling circuit
control and reduction of time-bandwidth in
video communication systems
[NASA-CASE-XNP-02791] c07 N71-23026

Teletypewriter video communication system and
apparatus
[NASA-CASE-XNP-06611] c07 N71-26102
Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328

VIDEO DATA
TV camera output signal control system for
digital spacecraft communication
[NASA-CASE-XNP-01472] c14 N70-41807
Transient video signal tape recorder with
expanded playback
[NASA-CASE-ARC-10003-1] c09 N71-25866
Restoration and improvement of demodulated
facsimile video signals
[NASA-CASE-GSC-10185-1] c07 N72-12081
Dual digital video switcher
[NASA-CASE-KSC-10782-1] c33 N75-30431

VIDEO EQUIPMENT
Video signal processing system for sampling
video brightness levels
[NASA-CASE-NPO-10140] c07 N71-24742
Video sync processor with phase locked system
[NASA-CASE-KSC-10002] c10 N71-25865
Teletypewriter video communication system and
apparatus
[NASA-CASE-XNP-06611] c07 N71-26102
Video signal enhancement of signal component
representing brightness of scene element in
low contrast
[NASA-CASE-NPO-10343] c07 N71-27341
Circuitry for high input impedance video
processor with high noise immunity
[NASA-CASE-NPO-10199] c09 N72-17156
Electronic video editor for switching video
input signals to common output channel
[NASA-CASE-KSC-10003] c10 N73-13235
Video tape recorder with scan conversion
playback for color television signals
[NASA-CASE-NPO-10166-1] c07 N73-22076
Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391
Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656

VIDICONS
Operation of vidicon tube for scanning spatial
charge density pattern
[NASA-CASE-XNP-06028] c09 N71-23189
Device which separates and screens particles of
soil samples for vidicon viewing in vacuum and
reduced gravity environments
[NASA-CASE-XNP-09770-3] c11 N71-27036

VINYL POLYMERS
Method of producing output voltage from
photovoltaic cell using poly-N-vinyl carbazole
complexed with iodine
[NASA-CASE-NPO-10373] c03 N71-18698
Heat resistant polymers of oxidized
styrylphosphine
[NASA-CASE-MSC-14903-3] c27 N78-25217
Heat resistant polymers of oxidized
styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N78-32256

VINYLLIDENE
Preparation of dicyanoacetylene and vinylidene
copolymers using organic compounds
[NASA-CASE-XNP-03250] c06 N71-23500

VIRUSES
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N79-10693

VISCOELASTICITY
Automated ball rebound resilience test equipment
for determining viscoelastic properties of
polymers
[NASA-CASE-XLA-08254] c14 N71-26161
Development and characteristics of parallel
plate viscometer for determination of absolute
viscosity of liquids and viscoelastic materials
[NASA-CASE-NPO-11387] c14 N73-14429
Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573

VISCOSIMETERS
Describing instrument capable of measuring true
shear viscosity of liquids and viscoelastic
materials
[NASA-CASE-XNP-09462] c14 N71-17584
Development and characteristics of parallel
plate viscometer for determination of absolute
viscosity of liquids and viscoelastic materials
[NASA-CASE-NPO-11387] c14 N73-14429

SUBJECT INDEX

VOLTAGE REGULATORS

- Viscosity measuring instrument
[NASA-CASE-NPO-14501-1] c35 N78-27385
- VISCOSITY**
Low density and low viscosity magnetic
propellant for use under zero gravity conditions
[NASA-CASE-XLB-01512] c12 N70-40124
- Viscosity measuring instrument
[NASA-CASE-NPO-14501-1] c35 N78-27385
- VISCOUS DAMPING**
Shock and vibration damping device using
temperature sensitive solid amorphous polymers
[NASA-CASE-XAC-11225] c14 N69-27486
- Design and operation of viscous pendulum damper
[NASA-CASE-XLA-02079] c12 N71-16894
- Mercury filled pendulum damper for controlling
bending vibration induced by wind effects
[NASA-CASE-LAR-10274-1] c14 N71-17626
- VISIBILITY**
Controlled visibility device for simulating poor
visibility conditions in training pilots in
instrument landing and flight procedures
[NASA-CASE-XPR-04107] c11 N71-10748
- High visibility air sea rescue panel
[NASA-CASE-MSC-12564-2] c03 N78-25070
- VISORS**
Anti-fog composition --- for prevention of
fogging on surfaces such as space helmet
visors and windshields
[NASA-CASE-MSC-13530-2] c23 N75-14834
- VISUAL ACUITY**
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759
- VISUAL CONTROL**
Visual target luminaires for retrofire attitude
control
[NASA-CASE-XMS-12158-1] c31 N69-27499
- VISUAL FIELDS**
Automated visual sensitivity tester for
determining visual field sensitivity and blind
spot size
[NASA-CASE-ARC-10329-1] c05 N73-26072
- Visual examination apparatus
[NASA-CASE-EP-ARC-10329-2] c52 N76-30793
- Binocular device for displaying numerical
information in field of view
[NASA-CASE-LAR-11782-1] c74 N77-20882
- VISUAL OBSERVATION**
Automatic visual inspection system for
microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396
- VISUAL PERCEPTION**
High pressure liquid flow sight assembly for
wide temperature range applications including
cryogenic fluids
[NASA-CASE-XLB-02998] c14 N70-42074
- VISUAL STIMULI**
Reaction tester for testing reaction to light
stimuli
[NASA-CASE-MSC-13604-1] c05 N73-13114
- VOICE COMMUNICATION**
Position locating system for remote aircraft
using voice communication and digital signals
[NASA-CASE-GSC-10087-2] c21 N71-13958
- Earth satellite relay station for frequency
multiplexed voice transmission
[NASA-CASE-GSC-10118-1] c07 N71-24621
- Voice operated receiving and transmitting system
for use in protective suits
[NASA-CASE-KSC-10164] c07 N71-33108
- Technique for recovery of voice data from heat
damaged magnetic tape
[NASA-CASE-MSC-10219-1] c32 N74-27612
- Filtering device --- removing electromagnetic
noise from voice communication signals
[NASA-CASE-NFS-22729-1] c32 N76-21366
- Real-time analysis of voiced sounds
[NASA-CASE-NPO-13465-1] c32 N76-31372
- Satellite personal communications system
[NASA-CASE-NPO-14480-1] c32 N78-25275
- VOICE DATA PROCESSING**
Digital communication system
[NASA-CASE-MSC-13912-1] c32 N74-30524
- VOLATILITY**
Apparatus for determining volatile condensable
material present in polymeric products
[NASA-CASE-INP-09699] c06 N71-24607
- VOLT-AMPERE CHARACTERISTICS**
Simulating voltage-current characteristic curves
of solar cell panel with different operational
parameters
[NASA-CASE-XMS-01554] c10 N71-10578
- The dc-to-dc converters employing
staggered-phase power switches with two-loop
control
[NASA-CASE-NPO-13512-1] c33 N77-10428
- Apparatus including a plurality of spaced
transformers for locating short circuits in
cables
[NASA-CASE-KSC-10899-1] c33 N79-18193
- VOLTAGE AMPLIFIERS**
Increasing power conversion efficiency of
electronic amplifiers by power supply switching
[NASA-CASE-XMS-00945] c09 N71-10798
- Bootstrap unloading circuits for sampling
transducer voltage sources without drawing
current
[NASA-CASE-INP-09768] c09 N71-12516
- RC networks with voltage amplifier, RC input
circuit, and positive feedback
[NASA-CASE-ARC-10020] c10 N72-17172
- Wide range analog to digital converter with
variable gain amplifier
[NASA-CASE-NPO-11018] c08 N72-21200
- Voltage feed through apparatus having reduced
partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297
- VOLTAGE CONVERTERS (DC TO DC)**
Regulated dc-to-dc converter for voltage step-up
or step-down with input-output isolation
[NASA-CASE-HQN-10792-1] c33 N74-11049
- The dc-to-dc converters employing
staggered-phase power switches with two-loop
control
[NASA-CASE-NPO-13512-1] c33 N77-10428
- Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333
- Phase substitution of spare converter for a
failed one of parallel phase staggered
converters
[NASA-CASE-NPO-13812-1] c33 N77-30365
- Regulated high efficiency, lightweight
capacitor-diode multiplier dc to dc converter
[NASA-CASE-LEW-12791-1] c33 N78-32341
- VOLTAGE GENERATORS**
Pulsed energy power system for application of
combustible gases to turbine controlling ac
voltage generator
[NASA-CASE-MSC-13112] c03 N71-11057
- Biotelemetry apparatus with dual voltage
generators for implanting in animals
[NASA-CASE-XAC-05706] c05 N71-12342
- Transistorized circuit for producing multiple
slope voltage sweep
[NASA-CASE-XMS-03542] c09 N71-28926
- Inductive-capacitive loops as load insensitive
power converters
[NASA-CASE-ERC-10268] c09 N72-25252
- Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336
- VOLTAGE REGULATORS**
Regulated dc to dc converter
[NASA-CASE-IGS-03429] c03 N69-21330
- Power control switching circuit using low
voltage semiconductor controlled rectifiers
for high voltage isolation
[NASA-CASE-INP-02713] c10 N69-39888
- Automatic measuring and recording of gain and
zero drift characteristics of electronic
amplifier
[NASA-CASE-XMS-05562-1] c09 N69-39986
- Automatic control of voltage supply to direct
current motor
[NASA-CASE-XMS-04215-1] c09 N69-39987
- Design, development, and operating principles of
power supply with starting circuit which is
independent of voltage regulator
[NASA-CASE-XMS-01991] c09 N71-21449
- High voltage divider system for attenuating high
voltages to convenient levels suitable for
introduction to measuring circuits
[NASA-CASE-XLB-02008] c09 N71-21583
- Power supply with overload protection for series
stage transistor
[NASA-CASE-XMS-00913] c10 N71-23543
- Voltage controlled, variable frequency
relaxation oscillator with MOSFET variable
current feed
[NASA-CASE-GSC-10022-1] c10 N71-25882

Design and development of buck-boost voltage regulator circuit with additive or subtractive alternating current impressed on variable direct current source voltage
[NASA-CASE-GSC-10735-1] c10 N71-26085

Voltage range selection apparatus for sensing and applying voltages to electronic instruments without loading signal source
[NASA-CASE-XMS-06497] c14 N71-26244

Dissipative voltage regulator system for minimizing heat dissipation
[NASA-CASE-GSC-10891-1] c10 N71-26626

Power point tracker for maintaining optimal output voltage of power source
[NASA-CASE-GSC-10376-1] c14 N71-27407

Microvave power divider for providing variable output power to output waveguide in fixed waveguide system
[NASA-CASE-NPO-11031] c07 N71-33606

Relay controlled voltage switching unit for scanning circuitry of star tracker
[NASA-CASE-NPO-11253] c09 N72-17157

Switching type voltage regulator with relatively simple circuit arrangement
[NASA-CASE-LEW-11005-1] c09 N72-21243

Inductive-capacitive loops as load insensitive power converters
[NASA-CASE-ERC-10268] c09 N72-25252

Regulated dc-to-dc converter for voltage step-up or step-down with input-output isolation
[NASA-CASE-HQN-10792-1] c33 N74-11049

Overvoltage protection network
[NASA-CASE-ARC-10197-1] c33 N74-17929

Low distortion automatic phase control circuit --- voltage controlled phase shifter
[NASA-CASE-MPS-21671-1] c33 N74-22885

Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521

Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295

VOLTMEYERS
Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521

VOLUMETRIC ANALYSIS
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N79-18307

VOMITING
Venting device for pressurized space suit helmet to eliminate vomit expelled by crewmen
[NASA-CASE-XMS-09652-1] c05 N71-26333

VORTEX BREAKDOWNS
Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

VORTEX GENERATORS
Multiple vortex amplifier system as fluid valve
[NASA-CASE-XMF-04709] c15 N71-15609

Vortex attenuation method --- for multi-engine aircraft
[NASA-CASE-LAR-12034-1] c02 N77-22045

Vortex generator for controlling the dispersion of effluents in a flowing liquid
[NASA-CASE-LAR-12045-1] c34 N77-24423

Smokestack-mounted airfoil
[NASA-CASE-LAR-11669-1] c45 N79-10570

VORTICES
Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N79-14108

VULCANIZING
Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article
[NASA-CASE-LAR-10489-1] c31 N74-18124

W

WAFERS
Separation of semiconductor wafer into chips bounded by scribe lines
[NASA-CASE-ERC-10138] c26 N71-14354

Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-MPS-23315-1] c76 N78-24950

An improved system for slicing silicon wafers
[NASA-CASE-NPO-14406-1] c31 N79-10245

WALKING
Drop foot corrective device
[NASA-CASE-LAR-12259-1] c54 N78-18762

WALL TEMPERATURE
Thermocouple apparatus for measuring wall

temperatures in regeneratively cooled rocket engines having thin walled cooling passages
[NASA-CASE-XLE-05230-2] c14 N73-13417

Structural heat pipe --- for spacecraft wall thermal insulation system
[NASA-CASE-GSC-11619-1] c34 N75-12222

Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380

WALLS
Metal ribbon wrapped outer wall for regeneratively cooled combustion chamber
[NASA-CASE-XLE-00164] c15 N70-36411

WARNING SYSTEMS
Alarm system design for monitoring one or more relay circuits
[NASA-CASE-XMS-10984-1] c10 N71-19417

Unsaturating magnetic core transformer design with warning signal for electrical power processing equipment
[NASA-CASE-ERC-10125] c09 N71-24893

Electrical failure detector in solid rocket propellant motor insulation against thermal degradation by fuel grain
[NASA-CASE-XMF-03968] c14 N71-27186

Device for generating and controlling combustion products for testing of fire detection system
[NASA-CASE-GSC-11095-1] c14 N72-10375

Vertically stacked collinear array of independently fed omnidirectional antennas for use in collision warning systems on commercial aircraft
[NASA-CASE-LAR-10545-1] c09 N72-21244

Development and operating principles of collision warning system for aircraft accident prevention
[NASA-CASE-HQN-10703] c21 N73-13643

Pilot warning indicator system of intruder aircraft
[NASA-CASE-ERC-10226-1] c14 N73-16483

Silent alarm system for multiple room facility or school
[NASA-CASE-NPO-11307-1] c10 N73-30205

Development and characteristics of electronic signalling system and data processing equipment for warning systems to avoid midair collisions between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641

Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090

Passive intrusion detection system
[NASA-CASE-NPO-13804-1] c35 N77-19390

Hearing aid malfunction detection system
[NASA-CASE-MSC-14916-1] c33 N78-10375

Automatic communication signal monitoring system
[NASA-CASE-NPO-13941-1] c32 N79-10262

WASTE DISPOSAL
Fecal waste disposal container
[NASA-CASE-XMS-06761] c05 N69-23192

Airlock for waste transferal from pressurized enclosure aboard space vehicle to waste receiver at negative pressure
[NASA-CASE-MPS-20922] c31 N72-20840

Pressurized tank for feeding liquid waste into processing equipment
[NASA-CASE-LAR-10365-1] c05 N72-27102

Reduced gravity fecal collector seat and urinal
[NASA-CASE-MPS-22102-1] c54 N74-20725

Airlock
[NASA-CASE-MPS-20922-1] c18 N74-22136

Automatic liquid inventory collecting and dispensing unit
[NASA-CASE-LAR-11071-1] c35 N75-19611

Automatic blowaste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804

WASTE ENERGY UTILIZATION
Pyrolysis system and process --- recovering energy from solid wastes containing hydrocarbons
[NASA-CASE-MSC-12669-1] c44 N76-16621

WASTE UTILIZATION
Simultaneous treatment of SO₂ containing stack gases and waste water
[NASA-CASE-MSC-16258-1] c45 N79-12584

WASTE WATER
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N79-10693

Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

SUBJECT INDEX

WAVEFORMS

WATER

Variable water load for dissipating large amounts of electrical power during high voltage power supply tests
[NASA-CASE-XNP-05381] c09 N71-20842
Gas chromatographic method for determining water in nitrogen tetroxide rocket propellant
[NASA-CASE-NPO-10234] c06 N72-17094
Hydrogen rich gas generator
[NASA-CASE-NPO-13342-1] c37 N76-16446
Solar hydrogen generator
[NASA-CASE-LAR-11361-1] c44 N77-22607
Remote water monitoring system
[NASA-CASE-LAR-11973-1] c35 N78-27384
Solar photolysis of water
[NASA-CASE-NPO-14126-1] c44 N79-11470

WATER FLOW

Potable water dispenser
[NASA-CASE-NFS-21115-1] c54 N74-12779

WATER INJECTION

Reentry communication by injection of water droplets into plasma layer surrounding space vehicle
[NASA-CASE-XLA-01552] c07 N71-11284

WATER LANDING

Parachute system for lowering manned spacecraft from post-reentry to ocean landing
[NASA-CASE-XLA-00195] c02 N70-38009
Spacecraft design with single point aerodynamic and hydrodynamic stability for emergency transport of men from space station to splashdown
[NASA-CASE-HSC-13281] c31 N72-18859

WATER MANAGEMENT

Description of electrical equipment and system for purification of waste water by producing silver ions for bacterial control
[NASA-CASE-HSC-10960-1] c03 N71-24718
Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

WATER POLLUTION

Utilization of solar radiation by solar still for converting salt and brackish water into potable water
[NASA-CASE-XNS-04533] c15 N71-23086
Portable tester for monitoring bacterial contamination by adenosine triphosphate light reaction
[NASA-CASE-GSC-10879-1] c14 N72-25413

WATER QUALITY

Rapid, quantitative determination of bacteria in water
[NASA-CASE-GSC-12158-1] c51 N78-22585
Method and apparatus for continuous measurement of bacterial content of aqueous samples
[NASA-CASE-HSC-16779-1] c51 N78-22586
Method and automated apparatus for detecting coliform organisms
[NASA-CASE-HSC-16777-1] c51 N78-22588
Water quality monitoring system
[NASA-CASE-HSC-16778-1] c51 N78-22589
Fluid sample collection and distribution system
[NASA-CASE-HSC-16841-1] c51 N78-22590

WATER RECLAMATION

Potable water reclamation from human wastes in zero-G environment
[NASA-CASE-XLA-03213] c05 N71-11207
Water system virus detection
[NASA-CASE-HSC-16098-1] c51 N79-10693
Water separator
[NASA-CASE-XNS-01295-1] c37 N79-21345

WATER RESOURCES

Radar target remotely sensing hydrological phenomena
[NASA-CASE-LAR-12344-1] c43 N78-33511

WATER TEMPERATURE

Differential thermopile for measuring cooling water temperature rise
[NASA-CASE-IAC-00812] c14 N71-15598

WATER TREATMENT

Description of electrical equipment and system for purification of waste water by producing silver ions for bacterial control
[NASA-CASE-HSC-10960-1] c03 N71-24718
Method of preparing water purification membranes --- polymerization of allyl amine as thin films in plasma discharge
[NASA-CASE-ARC-10643-1] c25 N75-12087

Water purification process
[NASA-CASE-ARC-10643-2] c51 N75-13506
Air removal device --- for purification of water under zero gravity conditions
[NASA-CASE-XLA-8914-2] c34 N76-23522
A reverse osmosis membrane of high urea rejection properties
[NASA-CASE-ARC-10980-1] c27 N77-18265
Iodine generator for reclaimed water purification
[NASA-CASE-HSC-14632-1] c54 N78-14784
Water quality monitoring system
[NASA-CASE-HSC-16778-1] c51 N78-22589
Ozonation of cooling tower waters
[NASA-CASE-NPO-14340-1] c25 N79-10167
Water system virus detection
[NASA-CASE-HSC-16098-1] c51 N79-10693
Simultaneous treatment of SO2 containing stack gases and waste water
[NASA-CASE-HSC-16258-1] c45 N79-12584
Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

WATER VAPOR

Equipment for measuring partial water vapor pressure in gas tank
[NASA-CASE-XNS-01618] c14 N71-20741

WATER WAVES

Surface roughness measuring system --- synthetic aperture radar measurements of ocean wave height and terrain peaks
[NASA-CASE-NPO-13862-1] c35 N79-10391

WATERPROOFING

Glass-to-metal seals comprising relatively high expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063

WAVE AMPLIFICATION

Distributed feedback acoustic surface wave oscillator
[NASA-CASE-NPO-13673-1] c71 N77-26919

WAVE DIFFRACTION

Diffraction grating configuration for X-ray and ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N78-32857

WAVE FRONT RECONSTRUCTION

Recording and reconstructing focused image holograms
[NASA-CASE-ERC-10017] c16 N71-35567

WAVE GENERATION

Wind tunnel air flow modulating device and apparatus for selectively generating wave motion in wind tunnel airstream
[NASA-CASE-XLA-00112] c11 N70-33287
Linear sawtooth voltage wave generator with transistor timing circuit having capacitor and zener diode feedback loops
[NASA-CASE-XNS-01315] c09 N70-41675
Sign wave generation simulator for variable amplitude, frequency, damping, and phase pulses for oscilloscope display
[NASA-CASE-NPO-10251] c10 N71-27365
Wideband generator for producing sine wave quadrature and second harmonic of input signal
[NASA-CASE-NPO-11133] c10 N72-20223
Material suspension within an acoustically excited resonant chamber --- at near weightless conditions
[NASA-CASE-NPO-13263-1] c12 N75-24774

WAVE REFLECTION

Surface defect detection by reflected microwave radiation pattern
[NASA-CASE-ARC-10009-1] c15 N71-17822
Millimeter wave antenna system for spacecraft use
[NASA-CASE-GSC-10949-1] c07 N71-28965

WAVE SCATTERING

Device and method for determining X ray reflection efficiency, scattering properties, and surface finish of optical surfaces
[NASA-CASE-NFS-20243] c23 N73-13662

WAVEFORMS

Variable frequency magnetic coupled multivibrator with output signal of constant amplitude and waveform
[NASA-CASE-IGS-00131] c09 N70-38995
Cathode ray oscilloscope for analyzing electrical waveforms representing amplitude distribution of time function
[NASA-CASE-XNP-01383] c09 N71-10659
Peak polarity selector for monitoring waveforms
[NASA-CASE-FRC-10010] c10 N71-24862

WAVEGUIDE ANTENNAS

SUBJECT INDEX

- Development of family of frequency to amplitude converters for frequency analysis of complex input signal waveforms
[NASA-CASE-HSC-12395] c09 N72-25257
- Device for performing statistical time-series analysis of complex electrical signal waveforms
[NASA-CASE-HSC-12428-1] c10 N73-25240
- Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-HSC-14557-1] c32 N76-16249
- Speech analyzer
[NASA-CASE-GSC-11898-1] c32 N77-30309
- Lightning current waveform measuring system
[NASA-CASE-KSC-11018-1] c33 N79-10337
- WAVEGUIDE ANTENNAS**
- Planar array circularly polarized antenna with wall slot excitation
[NASA-CASE-NPO-10301] c07 N72-11148
- Dielectric loaded aperture antenna with directive radiation pattern from waveguide
[NASA-CASE-LAR-11084-1] c09 N73-12216
- WAVEGUIDE FILTERS**
- Microwave power divider for providing variable output power to output waveguide in fixed waveguide system
[NASA-CASE-NPO-11031] c07 N71-33606
- WAVEGUIDE WINDOWS**
- Broadband microwave waveguide window to compensate dielectric material filling
[NASA-CASE-INP-08880] c09 N71-24808
- WAVEGUIDES**
- Dual waveguide mode source for controlling amplitudes of two modes
[NASA-CASE-INP-03134] c07 N71-10676
- Design of folded traveling wave maser structure
[NASA-CASE-INP-05219] c16 N71-15550
- Quasi-optical microwave circuit with dielectric body for use with oversize waveguides
[NASA-CASE-ERC-10011] c07 N71-29065
- Microwave waveguide mixer
[NASA-CASE-ERC-10179] c07 N72-20141
- Waveguide, thin film window and microwave irises
[NASA-CASE-LAR-10513-1] c07 N72-25170
- Development of thin film microwave iris installed in microwave waveguide transverse to flow of energy in waveguide
[NASA-CASE-LAR-10511-1] c09 N72-29172
- Resonant waveguide stark cell --- using microwave spectrometers
[NASA-CASE-LAR-11352-1] c33 N75-26241
- Diffused waveguiding capillary tube with distributed feedback for a gas laser
[NASA-CASE-NPO-13544-1] c36 N76-18428
- Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures
[NASA-CASE-NPO-14254-1] c36 N78-22359
- Support assembly for cryogenically coolable low-noise choked waveguide
[NASA-CASE-NPO-14253-1] c31 N79-10246
- Coaxial phased array antenna --- spacecraft antenna
[NASA-CASE-HSC-16800-1] c32 N79-19194
- WAVELENGTHS**
- Method and apparatus using temperature control for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343
- Multiple wavelength radiation measuring instrument for determining hot body or gas temperature
[NASA-CASE-XLE-00011] c14 N70-41946
- Optical system for selecting particular wavelength light beams from multiple wavelength light source
[NASA-CASE-ERC-10248] c14 N72-17323
- Development of radiant energy sensor to detect the radiant energy wavelength bands from portions of radiating body
[NASA-CASE-ERC-10174] c14 N72-25409
- Dual wavelength system for monitoring film deposition
[NASA-CASE-MFS-20675] c26 N73-26751
- Dual wavelength scanning Doppler velocimeter --- without perturbation of flow fields
[NASA-CASE-ARC-10637-1] c35 N75-16783
- Diatonic infrared gasdynamic laser --- for producing different wavelengths
[NASA-CASE-ARC-10370-1] c36 N75-31426
- Two wavelength double pulse tunable dye laser
[NASA-CASE-LAR-12012-1] c36 N77-10517
- WAVES**
- Oceanic wave measurement system
[NASA-CASE-NFS-23862-1] c48 N79-10689
- WEATHERPROOFING**
- Weatherproof helix antenna
[NASA-CASE-IKS-08485] c07 N71-19493
- WEBS (SHEETS)**
- Method and apparatus for measuring web material wound on a reel
[NASA-CASE-GSC-11902-1] c38 N77-17495
- WEBS (SUPPORTS)**
- Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-2] c07 N78-18066
- Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-3] c07 N79-14096
- WEDGES**
- Two dimensional wedge/translating shroud nozzle
[NASA-CASE-LAR-11919-1] c07 N78-27121
- WEIGHT (MASS)**
- Suspended mass oscillation damper based on impact energy absorption for damping wind induced oscillations of tall stacks, antennas, and umbilical towers
[NASA-CASE-LAR-10193-1] c15 N71-27146
- WEIGHT INDICATORS**
- Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-MFS-21556-1] c35 N74-26945
- WEIGHT MEASUREMENT**
- Weighing and recording device for obtaining precise automatic record of small changes in force
[NASA-CASE-XLA-02605] c14 N71-10773
- Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-MFS-21556-1] c35 N74-26945
- WEIGHTLESSNESS**
- Apparatus for cryogenic liquid storage with heat transfer reduction and for liquid transfer at zero gravity conditions
[NASA-CASE-XLE-00345] c15 N70-38020
- Liquid-gas separator adapted for use in zero gravity environment - drawings
[NASA-CASE-XMS-01624] c15 N70-40062
- Expulsion and measuring device for determining quantity of liquid in tank under conditions of weightlessness
[NASA-CASE-XMS-01546] c14 N70-40233
- Collapsible auxiliary tank for restarting liquid propellant rocket motors under zero gravity
[NASA-CASE-INP-01390] c28 N70-41275
- Absorbent apparatus for separating gas from liquid-gas stream used in environmental control under zero gravity conditions
[NASA-CASE-XMS-01492] c05 N70-41297
- Potable water reclamation from human wastes in zero-G environment
[NASA-CASE-XLA-03213] c05 N71-11207
- Describing apparatus for separating gas from cryogenic liquid under zero gravity and for venting gas from fuel tank
[NASA-CASE-XLE-00586] c15 N71-15968
- Cable suspension and inclined walkway system for simulating reduced or zero gravity environments
[NASA-CASE-XLA-01787] c11 N71-16028
- Development of apparatus for simulating zero gravity conditions
[NASA-CASE-MFS-12750] c27 N71-16223
- Quick disconnect latch and handle combination for mounting articles on walls or supporting bases in spacecraft under zero gravity conditions
[NASA-CASE-MFS-11132] c15 N71-17649
- Gauge for measuring quantity of liquid in spherical tank in reduced gravity
[NASA-CASE-XMS-06236] c14 N71-21007
- Zero gravity apparatus utilizing pneumatic decelerating means to create payload subjected to zero gravity conditions by dropping its height
[NASA-CASE-INP-06515] c14 N71-23227
- Method and apparatus for applying compressional forces to skeletal structure of subject to simulate force during ambulatory conditions
[NASA-CASE-ARC-10100-1] c05 N71-24738
- Device which separates and screens particles of soil samples for vidicon viewing in vacuum and

SUBJECT INDEX

WIND MEASUREMENT

- reduced gravity environments
 - [NASA-CASE-IMP-09770-3] c11 N71-27036
- Description of method for making homogeneous foamed materials in weightless environment using materials having different physical properties
 - [NASA-CASE-IMP-09902] c15 N72-11387
- Manipulator for remote handling in zero gravity environment
 - [NASA-CASE-MPS-14405] c15 N72-28495
- Apparatus for mixing two or more liquids under zero gravity conditions
 - [NASA-CASE-LAR-10195-1] c15 N73-19458
- Zero gravity liquid transfer device, using spiral shaped screen
 - [NASA-CASE-KSC-10626] c14 N73-27378
- Reduced gravity fecal collector seat and urinal
 - [NASA-CASE-MPS-22102-1] c54 N74-20725
- Apparatus for conducting flow electrophoresis in the substantial absence of gravity
 - [NASA-CASE-MPS-21394-1] c34 N74-27704
- Rotary plant growth accelerating apparatus --- weightlessness
 - [NASA-CASE-ARC-10722-1] c51 N75-25503
- Fluid control apparatus and method
 - [NASA-CASE-LAR-11110-1] c34 N75-26282
- Method for manufacturing mirrors in zero gravity environment
 - [NASA-CASE-MSC-12611-1] c12 N76-15189
- Air removal device --- for purification of water under zero gravity conditions
 - [NASA-CASE-XLA-8914-2] c34 N76-23522
- Zero gravity separator
 - [NASA-CASE-LAR-10344-1] c35 N76-33470
- Fluid mass sensor for a zero gravity environment
 - [NASA-CASE-MSC-14653-1] c35 N77-19385
- Method of crystallization --- in gravity-free environments
 - [NASA-CASE-MPS-23001-1] c76 N77-32919
- Low cost cryostat
 - [NASA-CASE-MPO-14513-1] c31 N79-20283
- WEIGHTLESSNESS SIMULATION**
 - Reduced gravity liquid configuration simulator to study propellant behavior in rocket fuel tanks
 - [NASA-CASE-XLE-02624] c12 N69-39988
 - Apparatus for measuring human body mass in zero or reduced gravity environment
 - [NASA-CASE-XMS-03371] c05 N70-42000
 - Harness assembly adapted to support man on ground based apparatus which simulates weightlessness
 - [NASA-CASE-MPS-14671] c05 N71-12341
 - Whole body measurement systems --- for weightlessness simulation
 - [NASA-CASE-MSC-13972-1] c52 N74-10975
- WELD STRENGTH**
 - Grain refinement control in TIG arc welding
 - [NASA-CASE-MSC-19095-1] c37 N75-19683
- WELD TESTS**
 - Nondestructive radiographic tests of resistance welds
 - [NASA-CASE-IMP-02588] c15 N71-18613
 - Method and apparatus for testing integrated circuit microtab welds
 - [NASA-CASE-ARC-10176-1] c15 N72-21464
- WELDED JOINTS**
 - Apparatus for welding blades to rotors
 - [NASA-CASE-LEW-10533-2] c37 N74-11300
 - Ultrasonic scanning system for in-place inspection of brazed tube joints
 - [NASA-CASE-MPS-20767-1] c38 N74-15130
 - Device for measuring the ferrite content in an austenitic stainless-steel weld
 - [NASA-CASE-MPS-22907-1] c26 N76-18257
 - Capillary flow weld-bonding
 - [NASA-CASE-LAR-11726-1] c37 N76-27568
- WELDED STRUCTURES**
 - Grain refinement control in TIG arc welding
 - [NASA-CASE-MSC-19095-1] c37 N75-19683
 - Flanged major modular assembly jig
 - [NASA-CASE-MSC-19372-1] c39 N76-31562
 - Weld-bonded titanium structures
 - [NASA-CASE-LAR-11549-1] c37 N77-11397
 - Bi-metallic junctions
 - [NASA-CASE-LEW-11573-1] c26 N77-28265
- WELDING**
 - Segmented back-up bar for butt welding large tubular structures such as rocket booster bodies or tanks
 - [NASA-CASE-IMP-00640] c15 N70-39924
 - Flexible backup bar for welding awkwardly shaped structures
 - [NASA-CASE-IMP-00722] c15 N70-40204
 - Apparatus for welding sheet material --- butt joints
 - [NASA-CASE-XMS-01330] c37 N75-27376
 - Weld-bonded titanium structures
 - [NASA-CASE-LAR-11549-1] c37 N77-11397
 - Method and apparatus for holding two separate metal pieces together for welding
 - [NASA-CASE-GSC-12318-1] c37 N78-23434
- WELDING MACHINES**
 - Computer controlled apparatus for maintaining welding torch angle and velocity during seam tracking
 - [NASA-CASE-IMP-03287] c15 N71-15607
 - Welding torch with automatic speed controller using speed sensing wheel and closed servo system
 - [NASA-CASE-IMP-01730] c15 N71-23050
 - Development of electric weeding torch with casing on one end to form inert gas shield
 - [NASA-CASE-IMP-02330] c15 N71-23798
 - Development of apparatus for automatically changing carriage speed of welding machine to obtain constant speed of torch along work surface
 - [NASA-CASE-IMP-07069] c15 N71-23815
 - Computerized system for translating a torch head
 - [NASA-CASE-MPS-23620-1] c37 N79-10421
- WET CELLS**
 - Indicator device for monitoring charge of wet cell battery, using semiconductor light emitter and photodetector
 - [NASA-CASE-NPO-10194] c03 N71-20407
- WETTING**
 - Anti-wettable materials brazing processes using titanium and zirconium for surface pretreatment
 - [NASA-CASE-XMS-03537] c15 N69-21471
- WHEATSTONE BRIDGES**
 - Self-balancing strain gage transducer with bridge circuit
 - [NASA-CASE-MPS-12827] c14 N71-17656
 - Development of method for improving signal to noise ratio and accuracy of Wheatstone bridge type radiation measuring instrument
 - [NASA-CASE-XLA-02810] c14 N71-25901
 - Temperature control system comprised of wheatstone bridge with RC circuit
 - [NASA-CASE-NPO-11304] c14 N73-26430
- WHEELS**
 - An improved suspension system for a wheel rolling on a flat track --- bearings for directional antennas
 - [NASA-CASE-NPO-14395-1] c37 N79-12446
- WHISKER COMPOSITES**
 - Composites reinforced with short metal fibers or whiskers and having high tensile strength
 - [NASA-CASE-XLE-00228] c17 N70-38490
- WHISKERS (SINGLE CRYSTALS)**
 - Catalyst for increased growth of boron carbide crystal whiskers
 - [NASA-CASE-IHQ-03903] c15 N69-21922
- WICKS**
 - Method of forming a wick for a heat pipe
 - [NASA-CASE-NPO-13391-1] c34 N76-27515
- WIDE ANGLE LENSES**
 - Wide angle eyepiece with long eye-relief distance
 - [NASA-CASE-XMS-06056-1] c23 N71-24857
- WIDEBAND COMMUNICATION**
 - Wideband heterodyne receiver for laser communication system
 - [NASA-CASE-GSC-12053-1] c32 N77-28346
- WINCHES**
 - Design and characteristics of device for showing amount of cable payed out from winch and load imposed
 - [NASA-CASE-MSC-12052-1] c15 N71-24599
- WIND EFFECTS**
 - Mercury filled pendulum damper for controlling bending vibration induced by wind effects
 - [NASA-CASE-LAR-10274-1] c14 N71-17626
- WIND MEASUREMENT**
 - Passive optical wind and turbulence remote detection system
 - [NASA-CASE-IMP-14032] c20 N71-16340

WIND PROFILES

SUBJECT INDEX

Barometers for measuring peak wind speeds during severe environmental conditions
[NASA-CASE-MFS-20916] c14 N73-25460

Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524

Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493

Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

WIND PROFILES

Free-fall body for obtaining wind velocity profiles by radar tracking
[NASA-CASE-XLA-02081] c20 N71-16281

WIND TUNNEL APPARATUS

Wind tunnel air flow modulating device and apparatus for selectively generating wave motion in wind tunnel airstream
[NASA-CASE-XLA-00112] c11 N70-33287

Electric arc device for minimizing electrode ablation and heating gases to supersonic or hypersonic wind tunnel temperatures
[NASA-CASE-XAC-00319] c25 N70-41628

Free flight suspension system for use with aircraft models in wind tunnel tests
[NASA-CASE-XLA-00939] c11 N71-15926

Burst diaphragm flow initiator for installation in short duration wind tunnels
[NASA-CASE-MFS-12915] c11 N71-17600

Electric arc heater with supersonic nozzle and fixed arc length for use in high temperature wind tunnels
[NASA-CASE-XAC-01677] c09 N71-20816

Design and characteristics of device for launching models in wind tunnels without disturbance of air flow
[NASA-CASE-XNP-03578] c11 N71-23030

Development of wind tunnel microphone structure to minimize effects of vibrations and eliminate unwanted signals in microphone output
[NASA-CASE-XNP-00250] c11 N71-28779

Resolution enhanced sound detecting apparatus --- wind tunnel apparatus for airframe noise localization
[NASA-CASE-NPO-14134-1] c71 N78-19898

Wind tunnel
[NASA-CASE-LAR-10135-1] c09 N79-21083

WIND TUNNEL DRIVES

Triggering system for electric arc driven impulse wind tunnel
[NASA-CASE-XNP-00411] c11 N70-36913

WIND TUNNEL MODELS

Wind tunnel method for simulating flow fields around blunt vehicles entering planetary atmospheres without involving high temperatures
[NASA-CASE-LAR-11138] c12 N71-20436

Multilegged support system for wind tunnel test models subjected to thermal dynamic loading
[NASA-CASE-XLA-01326] c11 N71-21481

Design and characteristics of device for launching models in wind tunnels without disturbance of air flow
[NASA-CASE-XNP-03578] c11 N71-23030

Damper system for alleviating air flow shock loads on wind tunnel models
[NASA-CASE-XLA-09480] c11 N71-33612

Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955

Method for determining thermo-physical properties of specimens --- photographic recording of changes in thin film phase-change temperature indicating material in wind tunnel
[NASA-CASE-LAR-11053-1] c25 N74-18551

WIND TUNNEL NOZZLES

Multi-purpose wind tunnel reaction control model block
[NASA-CASE-MSC-19706-1] c09 N78-31129

WIND TUNNEL TESTS

Metallic hot wire anemometer --- for high speed wind tunnel tests
[NASA-CASE-ARC-10911-1] c35 N77-20400

Multi-purpose wind tunnel reaction control model block
[NASA-CASE-MSC-19706-1] c09 N78-31129

Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure noise levels during wind tunnel tests
[NASA-CASE-LAR-12261-1] c02 N79-16805

WIND TUNNELS

Thin film gauge --- for measuring convective heat transfer rates along test surfaces in wind tunnels
[NASA-CASE-NPO-10617-1] c35 N74-22095

Wind tunnel flow generation section
[NASA-CASE-ARC-10710-1] c09 N75-12969

Apparatus for reducing aerodynamic noise in a wind tunnel
[NASA-CASE-MFS-23099-1] c09 N76-23273

Static pressure orifice system testing and apparatus
[NASA-CASE-LAR-12269-1] c09 N78-33123

WIND VELOCITY MEASUREMENT

Free-fall body for obtaining wind velocity profiles by radar tracking
[NASA-CASE-XLA-02081] c20 N71-16281

WINDING

Black body radiometer design with temperature sensing and cavity heat source cone winding
[NASA-CASE-XNP-09701] c14 N71-26475

Pulse coupling circuit with switch between generator and winding
[NASA-CASE-LEW-10433-1] c09 N72-22197

WINDOWS (APERTURES)

Waveguide, thin film window and microwave irises
[NASA-CASE-LAR-10513-1] c07 N72-25170

Observation window for internal gas confining chamber
[NASA-CASE-NPO-10890] c11 N73-12265

WINDPOWERED GENERATORS

Wind wheel electric power generator
[NASA-CASE-MFS-23515-1] c44 N78-22469

WINDSHIELDS

Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

WING FLAPS

Upper surface, external flow, jet-augmented flap configuration for high wing jet aircraft for noise reduction
[NASA-CASE-XLA-00087] c02 N70-33332

WING PROFILES

Supersonic aircraft configuration providing for variable aspect ratio and variable sweep wings
[NASA-CASE-XLA-00166] c02 N70-34178

An improved system for use in conducting wake investigation for a wing in flight --- differential pressure measurements for drag investigations
[NASA-CASE-FRC-11024-1] c02 N79-17797

WING TIP VORTICES

Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

WING TIPS

Smoke generator
[NASA-CASE-ARC-10905-1] c37 N77-13418

WINGS

Development of auxiliary lifting system to provide ferry capability for entry vehicles
[NASA-CASE-LAR-10574-1] c11 N73-13257

Surface finishing --- for aircraft wings
[NASA-CASE-MSC-12631-1] c24 N77-28225

Variable dihedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132

An annular wing
[NASA-CASE-FRC-11007-1] c02 N78-19055

Free wing assembly for an aircraft
[NASA-CASE-FRC-10092-1] c05 N79-12061

Detection of the transitional layer between laminar and turbulent flow areas on a wing surface --- using an accelerometer to measure noise levels during wind tunnel tests
[NASA-CASE-LAR-12261-1] c02 N79-16805

WIRE

Transpiration cooled turbine blade made from metallic or ceramic wires
[NASA-CASE-XLE-00020] c15 N70-33226

Soldering device particularly suited to making high quality wiring joints for aerospace engineering utilizing capillary attraction to regulate flow of solder
[NASA-CASE-XLA-08911] c15 N71-27214

Device for bending metal ribbon or wire
[NASA-CASE-XLA-05966] c15 N72-12408

Method of fabricating equal length insulated wire
[NASA-CASE-FRC-10038] c15 N72-20444

Shielded flat conductor cable of ribbonlike wires laminates in thin flexible insulation
[NASA-CASE-MFS-13687-2] c09 N72-22198

SUBJECT INDEX

YO-YO DEVICES

Electrical resistance butt welder for welding fine gauge tungsten/rhenium thermocouple wire
[NASA-CASE-LAN-10103-1] c15 N73-14468

Twisted wire or tube superconductor for filament windings
[NASA-CASE-LEW-11015] c26 N73-32571

WIRE BRIDGE CIRCUITS
Black body cavity radiometer with thermal resistance wire bridge circuit
[NASA-CASE-INP-08961] c14 N71-24809

WIRE CLOTH
Insulating system for receptacles of liquefied gases using wire cloth for forming frost layer
[NASA-CASE-INP-00341] c15 N70-33323

Method for making screen with unlimited fineness of mesh and screen thickness
[NASA-CASE-XIF-00953] c15 N71-15966

WIRE WINDING
Adjustable spiral wire winding device
[NASA-CASE-XMS-02383] c15 N71-15918

Superconducting alternator design with cryogenic fluid for cooling windings below critical temperature
[NASA-CASE-XLB-02823] c09 N71-23443

Direct current motor including stationary field windings and stationary armature winding
[NASA-CASE-IGS-07805] c15 N72-33476

WIRELESS COMMUNICATIONS
Silent alarm system for multiple room facility or school
[NASA-CASE-NPO-11307-1] c10 N73-30205

RF beam center location method and apparatus for power transmission system
[NASA-CASE-NPO-13821-1] c44 N78-28594

WIRING
Acoustic vibration test apparatus for wiring harnesses
[NASA-CASE-MSC-15158-1] c14 N72-17325

WOODEN STRUCTURES
Structural wood panels with improved fire resistance --- using prepolymers and hexamethylenetetramine
[NASA-CASE-ARC-11174-1] c24 N78-28178

WORDS (LANGUAGE)
Encoders designed to generate comma free biorthogonal Reed-Muller type code comprising conversion of 64 6-bit words into 64 32-bit data for communication purposes
[NASA-CASE-NPO-10595] c10 N71-25917

Logic circuit for generating multibit binary code word in parallel
[NASA-CASE-INP-04623] c10 N71-26103

Digital memory system with multiple switch cores for driving each word location
[NASA-CASE-INP-01466] c10 N71-26434

WORK HARDENING
Method of producing complex aluminum alloy parts of high temper, and products thereof
[NASA-CASE-MSC-19693-1] c26 N78-24333

WORKING FLUIDS
Heat pipe with dual working fluids
[NASA-CASE-ARC-10198] c34 N78-17336

WRENCHES
Ultrasonic wrench for applying vibratory energy to mechanical fasteners
[NASA-CASE-NPS-20586] c15 N71-17686

System for enhancing tool-exchange capabilities of a portable wrench
[NASA-CASE-NPS-22283-1] c37 N75-33395

Zero torque gear head wrench
[NASA-CASE-NPO-13059-1] c37 N76-20480

High-torque open-end wrench
[NASA-CASE-NPO-13541-1] c37 N79-14383

WRIST
Wrist joint assembly
[NASA-CASE-NPS-23311-1] c54 N78-17676

X

X RAY APPARATUS
Device and method for determining X ray reflection efficiency, scattering properties, and surface finish of optical surfaces
[NASA-CASE-NPS-20243] c23 N73-13662

X RAY DIFFRACTION
Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-NPS-23315-1] c76 N78-24950

X RAY IMAGERY

Low intensity X-ray and gamma-ray imaging device --- fiber optics
[NASA-CASE-GSC-12263-1] c74 N79-20857

X RAY INSPECTION

Method of determining bond quality of power transistors attached to substrates --- X ray inspection of junction microstructure
[NASA-CASE-NPS-21931-1] c37 N75-26372

Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-NPS-23315-1] c76 N78-24950

X RAY IRRADIATION

Multisample test chamber for exposing materials to X rays, temperature change, and gaseous conditions and determination of material effects
[NASA-CASE-XMS-02930] c11 N71-23042

X RAY LASERS

Soft X-ray laser using crystal channels as distributed feedback cavities
[NASA-CASE-NPO-13532-2] c36 N78-25409

X RAY TELESCOPES

X ray collimating structure for focusing radiation directly onto detector
[NASA-CASE-IRQ-04106] c14 N70-40240

Three mirror glancing incidence system for X-ray telescope
[NASA-CASE-NPS-21372-1] c74 N74-27866

Method of and means for testing a glancing-incidence mirror system of an X-ray telescope
[NASA-CASE-NPS-22409-2] c74 N78-15880

X RAYS

Supporting structure for simultaneous exposure of pellets to X rays
[NASA-CASE-INP-06031] c15 N71-15606

Selective image area control of X-ray film exposure density
[NASA-CASE-NPO-13808-1] c35 N78-15461

X-Y PLOTTERS

Describing device for surveying contour of surface using X-Y plotter and traveling transducer
[NASA-CASE-XLA-08646] c14 N71-17586

Particle parameter analyzing system --- x-y plotter circuits and display
[NASA-CASE-XLE-06094] c33 N78-17293

X-15 AIRCRAFT

Data processing and display system for terminal guidance of X-15 aircraft
[NASA-CASE-XPR-00756] c02 N71-13421

XENON ISOTOPES

Apparatus for producing high purity I-123 from Xe-123 by bombarding tellurium target with cyclotron beam
[NASA-CASE-LEW-10518-2] c24 N72-28714

XENON LAMPS

Xenon flashlamp driver system for optical laser pumping
[NASA-CASE-ERC-10283] c16 N72-25485

Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238

Y

YAG LASERS

Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c26 N75-19654

Length controlled stabilized mode-lock Nd:YAG laser
[NASA-CASE-GSC-11571-1] c36 N77-25499

YARNS

Flexible pile thermal barrier insulator
[NASA-CASE-MSC-19568-1] c34 N78-25350

Lightweight electrically-powered flexible thermal laminate --- made of metal and nonconductive yarns
[NASA-CASE-MSC-12662-1] c33 N79-12331

YAW

Three-axis controller operated by hand-wrist motion for yaw, pitch, and roll control
[NASA-CASE-IAC-01404] c05 N70-41581

YIELD STRENGTH

High toughness-high strength iron alloy
[NASA-CASE-LEW-12542-3] c26 N79-19145

YO-YO DEVICES

Stretch Yo-Yo mechanism for reducing initial spin rate of space vehicle
[NASA-CASE-IGS-00619] c30 N70-40016

Z

ZEOLITES

- Development of filter system for control of
outgas contamination in vacuum conditions
using absorbent beds of molecular sieve
zeolite, silica gel, and charcoal
[NASA-CASE-MFS-14711] c15 N71-26185
- Soft X-ray laser using crystal channels as
distributed feedback cavities
[NASA-CASE-NPO-13532-2] c36 N78-25409

ZINC

- Zinc dust formulation for abrasion resistant
steel coatings
[NASA-CASE-GSC-10361-1] c18 N72-23581
- Rechargeable battery which combats shape change
of the zinc anode
[NASA-CASE-HQN-10862-1] c44 N76-29699

ZINC COMPOUNDS

- Water content in vapor deposition atmosphere for
forming n-type and p-type junctions of zinc
doped gallium arsenide
[NASA-CASE-INP-01961] c26 N71-29156
- Vacuum preparation of zinc titanate pigment
resistant to loss of reflective properties
[NASA-CASE-MFS-13532] c18 N72-17532
- Brazing alloy
[NASA-CASE-YNP-03878] c26 N75-27127
- Zinc-halide battery with molten electrolyte
[NASA-CASE-NPO-11961-1] c44 N76-18643
- Method of preparing zinc orthotitanate pigment
[NASA-CASE-MFS-23345-1] c27 N77-30237

ZINC OXIDES

- Binder stabilized zinc oxide pigmented coating
for spacecraft thermal control
[NASA-CASE-XMP-07770-2] c18 N71-26772
- Development of procedure for producing thin
transparent films of zinc oxide on transparent
refractory substrate
[NASA-CASE-FRC-10019] c15 N73-12487

ZIRCONIUM

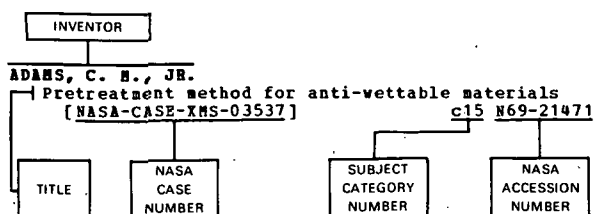
- Zirconium modified nickel-copper alloy
[NASA-CASE-LEW-12245-1] c26 N77-20201

ZIRCONIUM OXIDES

- Bonding of sapphire to sapphire by eutectic
mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992

Section 2

Typical Inventor Index Listing



Listings in this index are arranged alphabetically by inventor. The title of the document provides the user with a brief description of the subject matter. The NASA Case Number is the prime access point to patent documents. The subject category number indicates the category in Section 1 (Abstracts) in which the citation is located. The NASA accession number denotes the number by which the citation is identified within the subject category. The titles are arranged under each inventor in ascending accession number order.

A

ABEL, I. R.
Optical instruments
[NASA-CASE-HSC-14096-1] c74 N74-15095

ABERNATHY, W. J.
Insert facing tool
[NASA-CASE-HFS-21485-1] c37 N74-25968

ABHYANKAR, K. D.
Interferometer-polarimeter
[NASA-CASE-NPO-11239] c14 N73-12446

ABSHIRE, J. B.
Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053

ACORD, J. D.
Photosensitive device to detect bearing deviation Patent
[NASA-CASE-XNP-00438] c21 N70-35089
Space vehicle attitude control Patent
[NASA-CASE-XNP-00465] c21 N70-35395
Attitude control for spacecraft Patent
[NASA-CASE-XNP-02982] c31 N70-41855
Anti-backlash circuit for hydraulic drive system Patent
[NASA-CASE-XNP-01020] c03 N71-12260
Solar vane actuator Patent
[NASA-CASE-XNP-05535] c14 N71-23040

ACUNA, H. R.
Two axis fluxgate magnetometer Patent
[NASA-CASE-GSC-10441-1] c14 N71-27325
Controllable high voltage source having fast settling time
[NASA-CASE-GSC-11844-1] c33 N75-19522

ADACHI, R. R.
Programmable physiological infusion
[NASA-CASE-ARC-10447-1] c52 N74-22771

ADAMS, C. H., JR.
Pretreatment method for anti-wettable materials
[NASA-CASE-XMS-03537] c15 N69-21471

ADAMS, G. D.
Vacuum deposition apparatus Patent
[NASA-CASE-XNP-01667] c15 N71-17647
Evaporant source for vapor deposition Patent
[NASA-CASE-XNP-06065] c15 N71-20395

ADAMSON, A. P.
Impact absorbing blade mounts for variable pitch blades
[NASA-CASE-LEW-12313-1] c37 N78-10468
Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055

Gas turbine engine with convertible accessories
[NASA-CASE-LEW-12390-1] c07 N78-17056
Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-2] c07 N78-18066
Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089
Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-3] c07 N79-14096

ADAMSON, H. J.
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

AIRTH, H. B., JR.
Regulated power supply Patent
[NASA-CASE-XMS-01991] c09 N71-21449

AISENBERG, S.
Doppler shift system
[NASA-CASE-HQN-10740-1] c72 N74-19310

AJELLO, J. H.
High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

AJIOKA, J. S.
High efficiency multifrequency feed
[NASA-CASE-GSC-11909] c32 N74-20863

AKAWIE, R. I.
Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids
[NASA-CASE-HFS-22411-1] c37 N74-21058

AKKERMAN, J. W.
Reciprocating engines
[NASA-CASE-HSC-16239-1] c37 N78-11399

ALBRECHT, W. P.
Fifth wheel
[NASA-CASE-FRC-10081-1] c37 N77-14477

ALBRIGHT, C. P.
Water management system and an electrolytic cell therefor Patent
[NASA-CASE-HSC-10960-1] c03 N71-24718
Process for separation of dissolved hydrogen from water by use of palladium and process for coating palladium with palladium black
[NASA-CASE-HSC-13335-1] c06 N72-31140

ALBUS, J. S.
Light sensitive digital aspect sensor Patent
[NASA-CASE-XGS-00359] c14 N70-34158
System and method for tracking a signal source
[NASA-CASE-HQN-10880-1] c17 N78-17140

ALDRICH, B. E.
Underwater space suit pressure control regulator
[NASA-CASE-HFS-20332] c05 N72-20097
Underwater space suit pressure control regulator
[NASA-CASE-HFS-20332-2] c05 N73-25125
General purpose rocket furnace
[NASA-CASE-HFS-23460-1] c09 N77-12070

ALESNA, R. E.
Flexible joint for pressurizable garment
[NASA-CASE-HSC-11072] c54 N74-32546

ALEXANDER, P., JR.
Disconnect unit
[NASA-CASE-NPO-11330] c33 N73-26958

ALFORD, W. J., JR.
Variable sweep wing configuration Patent
[NASA-CASE-XLA-00230] c02 N70-33255

ALGER, D. L.
Deuterium pass through target.
[NASA-CASE-LEW-11866-1] c72 N76-15860
Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

Closed loop spray cooling apparatus [NASA-CASE-LEW-11981-1]	c31 N78-17237	ANDERSON, G. D. Phase detector assembly Patent [NASA-CASE-XNP-00701]	c09 N70-40272
Closed loop spray cooling apparatus [NASA-CASE-LEW-11981-2]	c34 N79-20336	ANDERSON, G. E. Flexible pile thermal barrier insulator [NASA-CASE-MSC-19568-1]	c34 N78-25350
ALLEN, G. V. Electric welding torch Patent [NASA-CASE-XNP-02330]	c15 N71-23798	ANDERSON, J. E. Method for removing oxygen impurities from cesium Patent [NASA-CASE-XNP-04262-2]	c17 N71-26773
ALLEN, R., JR. Apparatus for igniting solid propellants Patent [NASA-CASE-XLE-00207]	c28 N70-33375	ANDERSON, J. W. Edge coating of flat wires [NASA-CASE-XNP-05757-1]	c31 N79-21227
Method of igniting solid propellants Patent [NASA-CASE-XLE-01988]	c27 N71-15634	ANDERSON, K. F. Pulsed excitation voltage circuit for transducers [NASA-CASE-PRC-10036]	c09 N72-22200
ALLEN, J. G., JR. Lunar landing flight research vehicle Patent [NASA-CASE-XFR-00929]	c31 N70-34966	ANDERSON, R. A. Sandwich panel construction Patent [NASA-CASE-XLA-00349]	c33 N70-37979
ALLEN, J. H., SR. Apparatus for machining geometric cones Patent [NASA-CASE-XMS-04292]	c15 N71-22722	ANDERSON, R. E. Automatic transponder [NASA-CASE-GSC-12075-1]	c32 N77-31350
ALLEN, L. D. Method of improving heat transfer characteristics in a nucleate boiling process Patent [NASA-CASE-XMS-04268]	c33 N71-16277	ANDERSON, R. F. Piezoelectric pump Patent [NASA-CASE-XNP-05429]	c26 N71-21824
ALLEN, L. H. Method and apparatus for aligning a laser beam projector Patent [NASA-CASE-NPO-11087]	c23 N71-29125	ANDERSON, T. O. Binary number sorter Patent [NASA-CASE-NPO-10112]	c08 N71-12502
ALLEN, R. W. Ceramic insulation for radiant heating environments and method of preparing the same Patent [NASA-CASE-NPS-14253]	c33 N71-24858	Ranging system Patent [NASA-CASE-NPO-10066]	c09 N71-18598
ALLEN, W. K. Time division multiplex system [NASA-CASE-XGS-05918]	c07 N69-39974	Data compression processor Patent [NASA-CASE-NPO-10068]	c08 N71-19288
Serrodyne frequency converter re-entrant amplifier system Patent [NASA-CASE-XGS-01022]	c07 N71-16088	Data compressor Patent [NASA-CASE-XNP-04067]	c08 N71-22707
Traffic control system and method Patent [NASA-CASE-GSC-10087-1]	c02 N71-19287	Error correcting method and apparatus Patent [NASA-CASE-XNP-02748]	c08 N71-22749
Satellite interlace synchronization system [NASA-CASE-GSC-10390-1]	c07 N72-11149	Comparator for the comparison of two binary numbers Patent [NASA-CASE-XNP-04819]	c08 N71-23295
Doppler compensation by shifting transmitted object frequency within limits [NASA-CASE-GSC-10087-4]	c07 N73-20174	Digital synchronizer Patent [NASA-CASE-NPO-10851]	c07 N71-24613
ALLEN, W. W. Analog-to-digital converter analyzing system [NASA-CASE-NPO-10560]	c08 N72-22166	Decoder system Patent [NASA-CASE-NPO-10118]	c07 N71-24741
ALLEY, V. L., JR. Amplifying ribbon extensometer [NASA-CASE-LAR-11825-1]	c35 N77-22449	Parallel generation of the check bits of a PN sequence Patent [NASA-CASE-XNP-04623]	c10 N71-26103
Nozzle extraction process and handlemeter for measuring handle [NASA-CASE-LAR-12147-1]	c31 N79-11246	Rapid sync acquisition system Patent [NASA-CASE-NPO-10214]	c10 N71-26577
ALLGEIER, R. K., JR. Metal valve pintle with encapsulated elastomeric body Patent [NASA-CASE-MSC-12116-1]	c15 N71-17648	Digital filter for reducing sampling jitter in digital control systems Patent [NASA-CASE-NPO-11088]	c08 N71-29034
ALPER, H. E. Automated multi-level vehicle parking system [NASA-CASE-NPO-13058-1]	c37 N77-22480	Encoder/decoder system for a rapidly synchronizable binary code Patent [NASA-CASE-NPO-10342]	c10 N71-33407
ALTSHULER, T. L. Orifice gross leak tester Patent [NASA-CASE-PRC-10150]	c14 N71-28992	Modular encoder [NASA-CASE-NPO-10629]	c08 N72-18184
AMBROSIO, A. Gas operated actuator [NASA-CASE-NPO-11340]	c15 N72-33477	Transition tracking bit synchronization system [NASA-CASE-NPO-10844]	c07 N72-20140
AMEER, G. A. Telespectrograph Patent [NASA-CASE-ILA-03273]	c14 N71-18699	Digital quasi-exponential function generator [NASA-CASE-NPO-11130]	c08 N72-20176
ANON, H. Ritchey-Chretien Telescope [NASA-CASE-GSC-11487-1]	c14 N73-30393	MOD 2 sequential function generator for multibit binary sequence [NASA-CASE-NPO-10636]	c08 N72-25210
ANACKER, K. Forming tool for ribbon or wire [NASA-CASE-ILA-05966]	c15 N72-12408	Digital slope threshold data compressor [NASA-CASE-NPO-11630]	c08 N72-33172
ANAGNOSTOU, E. Method of making encapsulated solar cell modules [NASA-CASE-LEW-12185-1]	c44 N78-25528	Asynchronous, multiplexing, single line transmission and recovery data system [NASA-CASE-NPO-13321-1]	c32 N75-26195
ANDERSON, D. L. Static inverters which sum a plurality of waves Patent [NASA-CASE-XNP-00663]	c08 N71-18752	Multi-computer multiple data path hardware exchange system [NASA-CASE-NPO-13422-1]	c60 N76-14818
ANDERSON, F. A. Solid propellant rocket motor [NASA-CASE-XNP-03282]	c28 N72-20758	Computer interface system [NASA-CASE-NPO-13428-1]	c60 N77-12721
High performance ammonium nitrate propellant [NASA-CASE-NPO-14260]	c28 N78-17230	High-speed multiplexing of keyboard data inputs [NASA-CASE-NPO-14554-1]	c60 N79-14797
		ANDERSON, W. J. Method of improving the reliability of a rolling element system Patent [NASA-CASE-XLE-02999]	c15 N71-16052
		High speed rolling element bearing [NASA-CASE-LEW-10856-1]	c15 N72-22490
		High speed hybrid bearing comprising a fluid bearing and a rolling bearing convected in series [NASA-CASE-LEW-11152-1]	c15 N73-32359
		Thrust bearing [NASA-CASE-LEW-11949-1]	c37 N76-29588
		ANDERSON, W. W. Annular momentum control device used for	

INVENTOR INDEX

AVIZIENIS, A. A.

- stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158
- Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-1] c19 N76-18227
- Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-2] c37 N78-27424
- ANDERSON, W. W., JR.
Compensating radiometer
[NASA-CASE-XLA-04556] c14 N69-27484
- Semi-linear ball bearing Patent
[NASA-CASE-XLA-02809] c15 N71-22982
- ANDREWS, E. H., JR.
Method of obtaining permanent record of surface
flow phenomena Patent
[NASA-CASE-XLA-01353] c14 N70-41366
- ANDREWS, E. E.
Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090
- ANDREWS, T. W.
Adjustable support
[NASA-CASE-NPO-10721] c15 N72-27484
- ANGELE, W.
Electrical connector for flat cables Patent
[NASA-CASE-XMP-00324] c09 N70-34596
- Instrument support with precise lateral
adjustment Patent
[NASA-CASE-XMP-00480] c14 N70-39898
- Support apparatus for dynamic testing Patent
[NASA-CASE-XMP-01772] c11 N70-41677
- Method of making a soldered connector Patent
[NASA-CASE-XMP-03498] c15 N71-15986
- Method of making shielded flat cable Patent
[NASA-CASE-MFS-13687] c09 N71-28691
- Shielded flat cable
[NASA-CASE-MFS-13687-2] c09 N72-22198
- Electrical connector
[NASA-CASE-MFS-20757] c09 N72-28225
- Cryogenic gyroscope housing
[NASA-CASE-MFS-21136-1] c35 N74-18323
- APPEL, H. A.
Propellant tank pressurization system Patent
[NASA-CASE-XNP-00650] c27 N71-28929
- APPLEBERRY, W. T.
Device for measuring tensile forces
[NASA-CASE-MFS-21728-1] c35 N74-27865
- Device for use in loading tension members
[NASA-CASE-MFS-21488-1] c14 N75-24794
- Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482
- Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536
- Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499
- Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377
- APPLER, E. L.
Method for generating ultra-precise angles Patent
[NASA-CASE-XGS-04173] c19 N71-26674
- APPLETON, E. W.
Omnidirectional slot antenna for mounting on
cylindrical space vehicle
[NASA-CASE-LAR-10163-1] c09 N72-25247
- ARCAUD, G. H.
Method for determining the state of charge of
batteries by the use of tracers Patent
[NASA-CASE-XNP-01464] c03 N71-10728
- ARCELLA, P. G.
Method of forming a wick for a heat pipe
[NASA-CASE-NPO-13391-1] c34 N76-27515
- Bi-metallic junctions
[NASA-CASE-LEW-11573-1] c26 N77-28265
- ARENS, W. E.
Charge-coupled device data processor for an
airborne imaging radar system
[NASA-CASE-NPO-13587-1] c32 N77-32342
- Azimuth correlator for real-time synthetic
aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N79-14268
- ARGOUD, H. J.
Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933
- ARIAS, A.
Apparatus for positioning and loading a test
specimen Patent
[NASA-CASE-XLE-01300] c15 N70-41993
- Thermal shock apparatus Patent
[NASA-CASE-XLE-02024] c14 N71-22964
- Production of metal powders
[NASA-CASE-XLE-06461] c17 N72-22530
- Method for producing dispersion strengthened
alloys by converting metal to a halide,
consolidating, reducing the metal halide to the
metal and sintering
[NASA-CASE-LEW-10450-1] c15 N72-25448
- Apparatus for producing metal powders
[NASA-CASE-XLE-06461-2] c17 N72-28535
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Coupling for linear shaped charge Patent
[NASA-CASE-XLA-00189] c33 N70-36846
- ARNDT, G. D.
System for improving signal-to-noise ratio of a
communication signal Patent Application
[NASA-CASE-MSC-12259-1] c07 N70-12616
- System for improving signal-to-noise ratio of a
communication signal
[NASA-CASE-MSC-12259-2] c07 N72-33146
- ARNOLD, W. E., JR.
Electrical resistance spot welding and brazing
techniques for metal bonding
[NASA-CASE-LAR-11072-1] c15 N73-20535
- ARRANCH, F. C.
Method of making membranes
[NASA-CASE-XNP-04264] c03 N69-21337
- ASHBROOK, R. L.
High temperature cobalt-base alloy Patent
[NASA-CASE-XLE-04726] c17 N71-15644
- High temperature cobalt-base alloy Patent
[NASA-CASE-XLE-02991] c17 N71-16025
- High temperature ferromagnetic cobalt-base alloy
Patent
[NASA-CASE-XLE-03629] c17 N71-23248
- Method of forming superalloys
[NASA-CASE-LEW-10805-1] c15 N73-13465
- Method of heat treating a formed powder product
material
[NASA-CASE-LEW-10805-3] c26 N74-10521
- Method of forming articles of manufacture from
superalloy powders
[NASA-CASE-LEW-10805-2] c37 N74-13179
- ASHWORTH, B. R.
Apparatus for applying simulator g-forces to an
arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597
- A seat cushion to provide realistic acceleration
cues for aircraft simulator pilots
[NASA-CASE-LAR-12149-2] c54 N78-30821
- ASKINS, B. S.
Method of obtaining intensified image from
developed photographic films and plates
[NASA-CASE-MFS-23461-1] c35 N79-10389
- ASTHEIMER, E. W.
Multi-lobar scan horizon sensor Patent
[NASA-CASE-IGS-00809] c21 N70-35427
- ATKISSON, E. A.
Apparatus having coaxial capacitor structure for
measuring fluid density Patent
[NASA-CASE-XLE-00143] c14 N70-36618
- AUBLE, C. H.
Instrument for the quantitative measurement of
radiation at multiple wave lengths Patent
[NASA-CASE-XLE-00011] c14 N70-41946
- AUER, S. O.
Cosmic dust or other similar outer space
particles impact location detector
[NASA-CASE-GSC-11291-1] c25 N72-33696
- Micrometeoroid analyzer
[NASA-CASE-ARC-10443-1] c14 N73-20477
- Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331
- Micrometeoroid velocity and trajectory analyzer
[NASA-CASE-GSC-11892-1] c35 N76-15433
- Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393
- Remote sensing of vegetation and soil using
microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529
- AUKER, B. H.
Refractory porcelain enamel passive control
coating for high temperature alloys
[NASA-CASE-MFS-22324-1] c27 N75-27160
- AUSTIN, I. G.
Water separator
[NASA-CASE-IHS-01295-1] c37 N79-21345
- AUSTIN, W. E.
Compton scatter attenuation gamma ray spectrometer
[NASA-CASE-MFS-21441-1] c14 N73-30392
- AVIZIENIS, A. A.
Self-testing and repairing computer Patent

[NASA-CASE-NPO-10567] c08 N71-24633
 AYVAZIAN, R. A.
 Laminar flow enhancement Patent
 [NASA-CASE-NPO-10122] c12 N71-17631
 Propellant mass distribution metering apparatus
 Patent
 [NASA-CASE-NPO-10185] c10 N71-26339

B

BABA, P. D.
 Method for making conductors for ferrite memory
 arrays
 [NASA-CASE-LAR-10994-1] c24 N75-13032
 BABB, B. D.
 Method and apparatus for cryogenic wire
 stripping Patent
 [NASA-CASE-HFS-10340] c15 N71-17628
 Self-balancing strain gage transducer Patent
 [NASA-CASE-HFS-12827] c14 N71-17656
 BABECKI, A. J.
 Peen plating
 [NASA-CASE-GSC-11163-1] c15 N73-32360
 BACCINI, R.
 Valve actuator Patent
 [NASA-CASE-IXO-01208] c15 N70-35409
 BACHLE, W. H.
 Mechanically extendible telescoping boom
 [NASA-CASE-NPO-11118] c03 N72-25021
 BADIN, F. E.
 Space simulation and radiative property testing
 system and method Patent
 [NASA-CASE-HFS-20096] c14 N71-30026
 BAEHR, E. F.
 Channel-type shell construction for rocket
 engines and the like Patent
 [NASA-CASE-XLE-00144] c28 N70-34860
 Rocket thrust chamber Patent
 [NASA-CASE-XLE-00145] c28 N70-36806
 Method of making a regeneratively cooled
 combustion chamber Patent
 [NASA-CASE-XLE-00150] c28 N70-41818
 Method of making a rocket motor casing Patent
 [NASA-CASE-XLE-00409] c28 N71-15658
 Rocket motor casing Patent
 [NASA-CASE-XLE-05689] c28 N71-15659
 Ophthalmic liquification pump
 [NASA-CASE-LEW-12051-1] c52 N75-33640
 Corneal seal device
 [NASA-CASE-LEW-12258-1] c52 N77-28716
 Intra-ocular pressure normalization apparatus
 [NASA-CASE-LEW-12955-1] c52 N77-30736
 Tissue macerating instrument
 [NASA-CASE-LEW-12668-1] c52 N78-14773
 Flow compensating pressure regulator
 [NASA-CASE-LEW-12718-1] c34 N78-25351
 BAER, D. A.
 Synchronous orbit battery cycler
 [NASA-CASE-GSC-11211-1] c03 N72-25020
 BAGANOFF, D.
 Means for controlling rupture of shock tube
 diaphragm Patent
 [NASA-CASE-XAC-00731] c11 N71-15960
 BAGBY, J. P.
 Thermally operated valve Patent
 [NASA-CASE-XLE-00815] c15 N70-35407
 BAHMAN, R.
 Self-erecting reflector Patent
 [NASA-CASE-XGS-09190] c31 N71-16102
 Belt for coupling driven members
 [NASA-CASE-GSC-12276-1] c37 N78-32429
 Belt for transmitting power from a driving
 member to a driven member
 [NASA-CASE-GSC-12289-1] c37 N78-32435
 BAHN, E. J.
 A dc servosystem including an ac motor Patent
 [NASA-CASE-NPO-10700] c07 N71-33613
 BAILLY, C. L., JR.
 Solid state controller three axes controller
 [NASA-CASE-HSC-12394-1] c08 N74-10942
 BAILLY, F. J., JR.
 Airplane take-off performance indicator Patent
 [NASA-CASE-XLA-00100] c14 N70-36807
 BAILLY, G. A.
 Magnetic matrix memory system Patent
 [NASA-CASE-INP-05835] c08 N71-12504
 BAILLY, J. W.
 Bi-polar phase detector and corrector for split
 phase PCM data signals Patent

[NASA-CASE-XGS-01590] c07 N71-12392
 Radio frequency coaxial high pass filter Patent
 [NASA-CASE-XGS-01418] c09 N71-23573
 BAILLY, M. C.
 Stacked array of omnidirectional antennas
 [NASA-CASE-LAR-10545-1] c09 N72-21244
 BAILEY, R. L.
 Apparatus and method for protecting a
 photographic device Patent
 [NASA-CASE-NPO-10174] c14 N71-18465
 Solid propellant rocket motor nozzle
 [NASA-CASE-NPO-11458] c28 N72-23810
 Electromagnetic wave energy converter
 [NASA-CASE-GSC-11394-1] c09 N73-32109
 BAKER, B. R.
 Radiation detector readout system Patent
 [NASA-CASE-IMS-03478] c14 N71-21040
 BAKER, C. D.
 Coating process
 [NASA-CASE-XNP-06508] c18 N69-39895
 Electrical spot terminal assembly Patent
 [NASA-CASE-NPO-10034] c15 N71-17685
 Electrical connector
 [NASA-CASE-NPO-10694] c09 N72-20200
 Pressure transducer
 [NASA-CASE-NPO-10832] c14 N72-21405
 BAKER, E. H.
 Centrifuge mounted motion simulator Patent
 [NASA-CASE-XAC-00399] c11 N70-34815
 BAKER, J. T.
 A logic-controlled occlusive cuff system
 [NASA-CASE-HSC-14836-1] c52 N76-27839
 BAKER, M. E.
 Omnidirectional joint Patent
 [NASA-CASE-IMS-09635] c05 N71-24623
 BAKER, R. L.
 Bidirectional step torque filter with zero
 backlash characteristic Patent
 [NASA-CASE-XGS-04227] c15 N71-21744
 BAKER, V. D.
 Vapor pressure measuring system and method Patent
 [NASA-CASE-IMS-01618] c14 N71-20741
 BAKSTON, B.
 Apparatus for the determination of the existence
 or non-existence of a bonding between two
 members Patent
 [NASA-CASE-HFS-13686] c15 N71-18132
 BALDREDGE, P.
 Tow bar for aircraft
 [NASA-CASE-PRC-11022-1] c09 N79-10069
 BALDWIN, L. V.
 Particle beam measurement apparatus using beam
 kinetic energy to change the heat sensitive
 resistance of the detection probe Patent
 [NASA-CASE-XLE-00243] c14 N70-38602
 Apparatus for increasing ion engine beam density
 Patent
 [NASA-CASE-XLE-00519] c28 N70-41576
 BALES, T. T.
 Controlled glass bead peening Patent
 [NASA-CASE-XLA-07390] c15 N71-18616
 Electrical resistance spot welding and brazing
 techniques for metal bonding
 [NASA-CASE-LAB-11072-1] c15 N73-20535
 BALLARD, R. R.
 Two-axis controller Patent
 [NASA-CASE-XPR-04104] c03 N70-42073
 BALLENTINE, F. M., JR.
 Foam generator Patent
 [NASA-CASE-XLA-00838] c03 N70-36778
 BALLOU, E. V.
 Process for the preparation of calcium superoxide
 [NASA-CASE-ARC-11053-1] c25 N79-10162
 BANFORD, R. H.
 Elastic universal joint Patent
 [NASA-CASE-INP-00416] c15 N70-36947
 Sealed separable connection Patent
 [NASA-CASE-NPO-10064] c15 N71-17693
 BANDINI, U.
 Out of tolerance warning alarm system for
 plurality of monitored circuits Patent
 [NASA-CASE-IMS-10984-1] c10 N71-19417
 BANK, H.
 Gas diffusion liquid storage bag and method of
 use for storing blood
 [NASA-CASE-NPO-13930-1] c52 N79-14749
 BANKS, B. A.
 Ion beam deflector Patent
 [NASA-CASE-LEW-10689-1] c28 N71-26173

INVENTOR INDEX

BAUMAN, A. J.

Ion thruster accelerator system Patent
 [NASA-CASE-LEW-10106-1] c28 N71-26642
 Process for glass coating an ion accelerator
 grid Patent
 [NASA-CASE-LEW-10278-1] c15 N71-28582
 Ion thruster magnetic field control
 [NASA-CASE-LEW-10835-1] c28 N72-22771
 Electromagnetic flow rate meter
 [NASA-CASE-LEW-10981-1] c35 N74-21018
 Sputtering holes with ion beamlets
 [NASA-CASE-LEW-11646-1] c20 N74-31269
 Method of making dished ion thruster
 grids
 [NASA-CASE-LEW-11694-1] c20 N75-18310
 Apparatus for forming dished ion thruster
 grids
 [NASA-CASE-LEW-11694-2] c37 N76-14461
 Method of constructing dished ion thruster
 grids
 to provide hole array spacing compensation
 [NASA-CASE-LEW-11876-1] c20 N76-21276
 Anode for ion thruster
 [NASA-CASE-LEW-12048-1] c20 N77-20162
BARKESTON, B. P.
 Device for measuring the ferrite content in an
 austenitic stainless-steel weld
 [NASA-CASE-HFS-22907-1] c26 N76-18257
BANTA, R. D.
 Positive contact resistance soldering unit
 [NASA-CASE-KSC-10242] c15 N72-23497
BARACK, W. W.
 Redundant disc
 [NASA-CASE-LEW-12496-1] c07 N78-33101
BARBER, J. B.
 Laser grating interferometer Patent
 [NASA-CASE-XLA-04295] c16 N71-24170
BARBERA, A. J.
 Use of unilluminated solar cells as shunt diodes
 for a solar array
 [NASA-CASE-GSC-10344-1] c03 N72-27053
BARGER, R. L.
 Continuously operating induction plasma
 accelerator Patent
 [NASA-CASE-XLA-01354] c25 N70-36946
BARISH, B.
 Pulsed energy power system Patent
 [NASA-CASE-HSC-13112] c03 N71-11057
BARKER, P.
 Vibrophonocardiograph Patent
 [NASA-CASE-XFR-07172] c05 N71-27234
BARWES, P. E.
 Cam-operated pitch-change apparatus
 [NASA-CASE-LEW-13050-1] c07 N79-14095
BARNETT, J. H., JR.
 Life raft stabilizer
 [NASA-CASE-HSC-12393-1] c02 N73-26006
BARNETT, M. A.
 Furlable antenna
 [NASA-CASE-NPO-13553-1] c33 N76-32457
BARNISKIS, W. A.
 Bus voltage compensation circuit for controlling
 direct current motor
 [NASA-CASE-XHS-04215-1] c09 N69-39987
BARNETT, T. W.
 Personal propulsion unit Patent
 [NASA-CASE-HFS-20130] c28 N71-27585
BARRINGTON, A. B.
 Sorption vacuum trap Patent
 [NASA-CASE-XER-09519] c14 N71-18483
BARRINGTON, A. B.
 Leak detector wherein a probe is monitored with
 ultraviolet radiation Patent
 [NASA-CASE-ERC-10034] c15 N71-24896
 Field ionization electrodes Patent
 [NASA-CASE-ERC-10013] c09 N71-26678
 Ion microprobe mass spectrometer for analyzing
 fluid materials Patent
 [NASA-CASE-ERC-10014] c14 N71-28863
 Device for measuring light scattering wherein
 the measuring beam is successively reflected
 between a pair of parallel reflectors Patent
 [NASA-CASE-XER-11203] c14 N71-28994
BARTERA, R. E.
 Indicator providing continuous indication of the
 presence of a specific pollutant in air
 [NASA-CASE-NPO-13474-1] c45 N76-21742
 Arc control in compact arc lamps
 [NASA-CASE-NPO-10870-1] c33 N77-22386
BARTHELME, D. E.
 Space suit pressure stabilizer Patent
 [NASA-CASE-XLA-05332] c05 N71-11194
 Equipotential space suit Patent
 [NASA-CASE-LAR-10007-1] c05 N71-11195
 Therapeutic hand exerciser
 [NASA-CASE-LAR-11667-1] c52 N76-19785
 Collapsible corrugated horn antenna
 [NASA-CASE-LAR-11745-1] c32 N77-24339
BARZA, W. J.
 Application of luciferase assay for ATP to
 antimicrobial drug susceptibility
 [NASA-CASE-GSC-12039-1] c51 N77-22794
 Determination of antimicrobial susceptibilities
 on infected urines without isolation
 [NASA-CASE-GSC-12046-1] c52 N79-14750
BASIULIS, A.
 Method and apparatus for distillation of liquids
 Patent
 [NASA-CASE-INP-08124] c15 N71-27184
 Radial heat flux transformer
 [NASA-CASE-NPO-10828] c33 N72-17948
 Method for distillation of liquids
 [NASA-CASE-INP-08124-2] c06 N73-13129
BASS, A. E.
 Ultraviolet resonance lamp Patent
 [NASA-CASE-ARC-10030] c09 N71-12521
 Ultraviolet atomic emission detector
 [NASA-CASE-HQN-10756-1] c14 N72-25428
BASS, J. A.
 A method and alloy for making electrical
 connections to conductive thin film
 [NASA-CASE-GSC-12404-1] c33 N79-17135
BASTIEN, G. J.
 Fluid flow restrictor Patent
 [NASA-CASE-NPO-10117] c15 N71-15608
BATH, E. R., JR.
 Apparatus for establishing flow of a fluid mass
 having a known velocity
 [NASA-CASE-HFS-21424-1] c34 N74-27730
BATES, H. E.
 Segmenting lead telluride-silicon germanium
 thermoelements Patent
 [NASA-CASE-XGS-05718] c26 N71-16037
BATHKER, D. A.
 Dual frequency microwave reflex feed
 [NASA-CASE-NPO-13091-1] c09 N73-12214
BATSCH, P. P.
 Attitude control for spacecraft Patent
 [NASA-CASE-INP-00294] c21 N70-36938
 Slit regulated gas journal bearing Patent
 [NASA-CASE-INP-00476] c15 N70-38620
BATTE, W. G.
 Exclusive-Or digital logic module Patent
 [NASA-CASE-XLA-07732] c08 N71-18751
BATTEN, C. E.
 Visible and infrared polarization ratio
 spectrophotometer
 [NASA-CASE-LAR-12285-1] c35 N78-32398
BATTERSON, S. A.
 Runway light Patent
 [NASA-CASE-XLA-00119] c11 N70-33329
BATTS, C. W.
 Contour surveying system Patent
 [NASA-CASE-XLA-08646] c14 N71-17586
BAUCON, E. E.
 Extensometer frame
 [NASA-CASE-XLA-10322] c15 N72-17452
BAUER, H. B.
 Air conditioning system and component therefore
 distributing air flow from opposite directions
 [NASA-CASE-GSC-11445-1] c31 N74-27902
BAUERNSCHUB, J. P., JR.
 Folding boom assembly Patent
 [NASA-CASE-XGS-00938] c32 N70-41367
 Nonmagnetic, explosive actuated indexing device
 Patent
 [NASA-CASE-XGS-02422] c15 N71-21529
BAUGHMAN, J. E.
 Observation window for a gas confining chamber
 [NASA-CASE-NPO-10890] c11 N73-12265
 Droplet monitoring probe
 [NASA-CASE-NPO-10985] c14 N73-20478
BAUMAN, A. J.
 Solder flux which leaves corrosion-resistant
 coating Patent
 [NASA-CASE-INP-03459-2] c18 N71-15688
 Soldering with solder flux which leaves
 corrosion resistant coating Patent
 [NASA-CASE-INP-03459] c15 N71-21078
 Fluid impervious barrier including liquid metal
 alloy and method of making same Patent

[NASA-CASE-INP-08881]	c17 N71-28747	testing	
BAUMER, W. E.		[NASA-CASE-NFS-20620]	c11 N72-27262
Counter Patent		BELLEV, R. E.	
[NASA-CASE-INP-06234]	c10 N71-27137	Thermal compensating structural member	
BAXTER, R. D.		[NASA-CASE-NFS-20433]	c15 N72-28496
Heat flux measuring system Patent		Docking structure for spacecraft	
[NASA-CASE-XPR-03802]	c33 N71-23085	[NASA-CASE-NFS-20863]	c31 N73-26876
BEALE, H. A.		Emergency descent device	
Hall effect magnetometer		[NASA-CASE-NFS-23078-1]	c54 N77-21844
[NASA-CASE-LEW-11632-2]	c35 N75-13213	BELL, A.	
BEAN, R. H.		Process for preparing higher oxides of the	
Thermodielectric radiometer utilizing polymer film		alkali and alkaline earth metals	
[NASA-CASE-ARC-10138-1]	c14 N72-24477	[NASA-CASE-ARC-10992-1]	c26 N78-32229
BEAN, R. A.		BELL, C. H.	
Optical projector system Patent		Fiber optic multiplex optical transmission system	
[NASA-CASE-INP-03853]	c23 N71-21882	[NASA-CASE-KSC-11047-1]	c74 N78-14889
BEAN, R. H.		BELL, D., III	
Solid medium thermal engine		Heated element fluid flow sensor Patent	
[NASA-CASE-ARC-10461-1]	c44 N74-33379	[NASA-CASE-HSC-12084-1]	c12 N71-17569
BEASLEY, R. H.		BELL, V. L.	
Two-component ceramic coating for silica		Aromatic polyimide preparation	
insulation		[NASA-CASE-LAR-11372-1]	c27 N74-19772
[NASA-CASE-HSC-14270-1]	c27 N76-22377	Polyimide adhesives	
Three-component ceramic coating for silica		[NASA-CASE-LAR-11397-1]	c27 N75-29263
insulation		Polyimide adhesives	
[NASA-CASE-HSC-14270-2]	c27 N76-23426	[NASA-CASE-LAR-12181-1]	c27 N78-17205
BEASLEY, W. D.		Process for preparing thermoplastic aromatic	
Continuously operating induction plasma		polyimides	
accelerator Patent		[NASA-CASE-LAR-11828-1]	c27 N78-32261
[NASA-CASE-XLA-01354]	c25 N70-36946	BELL, V. L., JR.	
BEATTY, R. W.		Process for interfacial polymerization of	
Rotary vane attenuator wherein rotor has		pyromellitic dianhydride and 1,2,4,	
orthogonally disposed resistive and dielectric		5-tetraamino-benzene Patent	
cards		[NASA-CASE-XLA-03104]	c06 N71-11235
[NASA-CASE-NPO-11418-1]	c14 N73-13420	Imidazopyrrolone/imide copolymers Patent	
BEAUREGARD, W. W.		[NASA-CASE-XLA-08802]	c06 N71-11238
Water separating system Patent		Dosimeter for high levels of absorbed radiation	
[NASA-CASE-IHS-13052]	c14 N71-20427	Patent	
BECK, A. F.		[NASA-CASE-XLA-03645]	c14 N71-20430
Small plasma probe Patent		BELLAVIA, J., JR.	
[NASA-CASE-XLE-02578]	c25 N71-20747	Thermal barrier pressure seal	
BECK, T. R.		[NASA-CASE-HSC-18134-1]	c37 N79-17225
Method of inhibiting stress corrosion cracks in		BEMENT, L. J.	
titanium alloys Patent		Linear explosive comparison	
[NASA-CASE-NPO-10271]	c17 N71-16393	[NASA-CASE-LAR-10800-1]	c33 N72-27959
BECKER, R. A.		Totally confined explosive welding	
Photoelectric energy spectrometer Patent		[NASA-CASE-LAR-10941-1]	c37 N74-21057
[NASA-CASE-INP-04161]	c14 N71-15599	Method of making an explosively welded scarf joint	
BECKERLE, L. D.		[NASA-CASE-LAR-11211-1]	c37 N75-12326
Heat shield oven		Totally confined explosive welding	
[NASA-CASE-IHS-04318]	c15 N69-27871	[NASA-CASE-LAR-10941-2]	c37 N79-13364
BECKMAN, P.		BENEDICT, R. D.	
Probes having ring and primary sensor at same		Transient augmentation circuit for pulse	
potential to prevent collection of stray wall		amplifiers Patent	
currents in ionized gases		[NASA-CASE-INP-01068]	c10 N71-28739
[NASA-CASE-XLE-00690]	c25 N69-39884	BENEDICTO, J. S. J.	
BECKWITH, R. E.		Method and apparatus for slicing crystals	
Mechanical coordinate converter Patent		[NASA-CASE-GSC-12291-1]	c31 N78-24386
[NASA-CASE-INP-00614]	c14 N70-36907	BENGTSON, R. D.	
BEEHN, J. H.		Fast opening diaphragm Patent	
Optical tracking mount Patent		[NASA-CASE-XLA-03660]	c15 N71-21060
[NASA-CASE-NFS-14017]	c14 N71-26627	BENHAM, J. W.	
BEEKMAN, S. W.		Voltage feed through apparatus having reduced	
Redundant disc		partial discharge	
[NASA-CASE-LEW-12496-1]	c07 N78-33101	[NASA-CASE-GSC-12347-1]	c33 N78-17297
BEEH, J. F.		BENNINGST, J. D.	
Method and apparatus for measuring		Method and apparatus for precision sizing and	
electromagnetic radiation		joining of large diameter tubes Patent	
[NASA-CASE-LEW-11159-1]	c14 N73-28488	[NASA-CASE-INP-05114]	c15 N71-17650
BEEE, E.		Method and apparatus for precision sizing and	
Cooled echelle grating spectrometer		joining of large diameter tubes Patent	
[NASA-CASE-NPO-14372-1]	c35 N79-17196	[NASA-CASE-INP-05114-3]	c15 N71-24865
BEHNER, H.		Method and apparatus for precision sizing and	
High-torque open-end wrench		joining of large diameter tubes Patent	
[NASA-CASE-NPO-13541-1]	c37 N79-14383	[NASA-CASE-INP-05114-2]	c15 N71-26148
BEHN, J. W.		BERDAH, C. H.	
Solid propellant rocket motor		Selective image area control of X-ray film	
[NASA-CASE-NPO-11559]	c28 N73-24784	exposure density	
BEJCEY, A. K.		[NASA-CASE-NPO-13808-1]	c35 N78-15461
Terminal guidance sensor system		Thermal energy transformer	
[NASA-CASE-NPO-14521-1]	c54 N79-20746	[NASA-CASE-NPO-14058-1]	c44 N79-18443
BELANGER, R. J.		BERENARD, D. G.	
Fluid lubricant system Patent		Direct heating surface combustor	
[NASA-CASE-INP-03972]	c15 N71-23048	[NASA-CASE-LEW-11877-1]	c34 N78-27357
BELASCO, W.		Free-piston regenerative hot gas hydraulic engine	
Medical subject monitoring systems		[NASA-CASE-LEW-12274-1]	c37 N79-10426
[NASA-CASE-HSC-14180-1]	c52 N76-14757	BERNARD, G. B.	
BELLEV, R. W., JR.		Method of making fiber composites	
Altitude simulation chamber for rocket engine		[NASA-CASE-LEW-10424-2-2]	c18 N72-25539

INVENTOR INDEX

BLAISE, H. T.

BERG, O. E.
 Dust particle injector for hypervelocity accelerators Patent
 [NASA-CASE-XGS-06628] c24 N71-16213
 Cosmic dust sensor
 [NASA-CASE-GSC-10503-1] c14 N72-20381

BERGEN, G. J.
 Method of forming a sharp edge on an optical device
 [NASA-CASE-GSC-12348-1] c74 N78-29902

BERGLUND, R. A.
 Erectable modular space station Patent
 [NASA-CASE-ILA-00678] c31 N70-34296

BERKMAN, S.
 A method and means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains
 [NASA-CASE-NPO-14298-1] c76 N79-10917
 An improved apparatus for use in the production of ribbon-shaped crystals from a silicon melt
 [NASA-CASE-NPO-14297-1] c76 N79-10918

BERKOPF, F. D.
 Process for preparing liquid metal electrical contact device
 [NASA-CASE-LEW-11978-1] c33 N77-26385
 Liquid metal slip ring
 [NASA-CASE-LEW-12277-2] c33 N78-25323

BERMAN, P. A.
 Solar cell grid patterns
 [NASA-CASE-NPO-14307-2] c44 N76-31666

BERNARDIN, R. B.
 Measuring device Patent
 [NASA-CASE-XMS-01586] c14 N70-40233

BERNATOWICZ, D. T.
 Method of making silicon solar cell array
 [NASA-CASE-LEW-11069-1] c44 N74-14784

BERNSEN, B.
 Electrical apparatus for detection of thermal decomposition of insulation Patent
 [NASA-CASE-XMP-03968] c14 N71-27186

BERNSTEIN, A. J.
 Automatic communication signal monitoring system
 [NASA-CASE-NPO-13941-1] c32 N79-10262

BERRY, E. H.
 Positive dc to positive dc converter Patent
 [NASA-CASE-XMP-14301] c09 N71-23188
 Positive dc to negative dc converter Patent
 [NASA-CASE-XMP-08217] c03 N71-23239

BESSETTE, R. J.
 Space suit
 [NASA-CASE-HSC-12609-1] c05 N73-32012

BESWICK, A. G.
 Lunar penetrometer Patent
 [NASA-CASE-ILA-00934] c14 N71-22765

BEUYUKIAN, C. S.
 Tube dimpling tool Patent
 [NASA-CASE-XMS-06876] c15 N71-21536

BEYLIN, C. H.
 Pressure seal Patent
 [NASA-CASE-NPO-10796] c15 N71-27068

BHAT, B. W.
 Method of growing composites of the type exhibiting the Soret effect
 [NASA-CASE-HFS-22926-1] c24 N77-27187

BHIVANDKAR, W. C.
 Method for making conductors for ferrite memory arrays
 [NASA-CASE-LAR-10994-1] c24 N75-13032

BIBBO, C.
 Flexible seal for valves Patent
 [NASA-CASE-XLB-00101] c15 N70-33376

BIEHL, A. J.
 Hypervelocity gun
 [NASA-CASE-XLB-03186-1] c09 N79-21084

BIEHNIK, T.
 Metal containing polymers from cyclic tetrameric phenylphosphonitrilamides Patent
 [NASA-CASE-HQH-10364] c06 N71-27363

BIKLE, P. F.
 An improved system for use in conducting wake investigation for a wing in flight
 [NASA-CASE-FRC-11024-1] c02 N79-17797

BILBO, J. W.
 Focused laser Doppler velocimeter
 [NASA-CASE-HFS-23178-1] c35 N77-10493

BILDERBACK, R. E.
 Amplitude modulated laser transmitter Patent
 [NASA-CASE-XMS-04269] c16 N71-22895

BILES, J. E., JR.
 High impact pressure regulator Patent
 [NASA-CASE-NPO-10175] c14 N71-18625

BILL, R. C.
 Gas path seal
 [NASA-CASE-LEW-12131-2] c07 N78-31103
 Composite seal for turbomachinery
 [NASA-CASE-LEW-12131-1] c37 N79-18318

BILLINGHAM, J.
 Temperature controller for a fluid cooled garment
 [NASA-CASE-ARC-10599-1] c05 N73-26071

BILLINGS, C. R.
 Emergency escape system Patent
 [NASA-CASE-XKS-07814] c15 N71-27067

BILLINGSLEY, F. C.
 Electro-optical scanning apparatus Patent
 Application
 [NASA-CASE-NPO-11106] c14 N70-34697
 Image data rate converter having a drum with a fixed head and a rotatable head
 [NASA-CASE-NPO-11659-1] c35 N74-11283

BILLMAN, K. W.
 Method and apparatus for wavelength tuning of liquid lasers
 [NASA-CASE-ERC-10187] c16 N69-31343
 Infrared tunable laser
 [NASA-CASE-ARC-10463-1] c09 N73-32111
 Alignment apparatus using a laser having a gravitationally sensitive cavity reflector
 [NASA-CASE-ARC-10444-1] c16 N73-33397
 Measurement of plasma temperature and density using radiation absorption
 [NASA-CASE-ARC-10598-1] c75 N74-30156

BILOW, N.
 Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids
 [NASA-CASE-HFS-22411-1] c37 N74-21058

BINCKLEY, W. G.
 Voltage regulator with plural parallel power source sections Patent
 [NASA-CASE-GSC-10891-1] c10 N71-26626

BIRCHENROUGH, A. G.
 Switching regulator
 [NASA-CASE-LEW-11005-1] c09 N72-21243
 Electronic analog divider
 [NASA-CASE-LEW-11881-1] c33 N77-17354
 Sustained arc ignition system
 [NASA-CASE-LEW-12444-1] c33 N77-28385

BIRD, J. D.
 Jet shoes
 [NASA-CASE-ILA-08491] c05 N69-21380

BISHOP, G. L.
 Broadband choke for antenna structure
 [NASA-CASE-XMS-05303] c07 N69-27462

BISHOP, R. E.
 Optical alignment system Patent
 [NASA-CASE-XMP-02029] c14 N70-41955

BLACK, D. H.
 Horizontally mounted solar collector
 [NASA-CASE-HFS-23349-1] c44 N77-30613

BLACK, I. A.
 Apparatus for measuring thermal conductivity Patent
 [NASA-CASE-XGS-01052] c14 N71-15992

BLACK, J. H.
 Full wave modulator-demodulator amplifier apparatus
 [NASA-CASE-FRC-10072-1] c33 N74-14939
 Window comparator
 [NASA-CASE-FRC-10090-1] c33 N78-18308

BLACK, S. H.
 Automatic gain control system
 [NASA-CASE-XMS-05307] c09 N69-24330

BLACK, W. W.
 Triaxial antenna Patent
 [NASA-CASE-XGS-02290] c07 N71-28809

BLACKBAY, J. E.
 Temperature controller for a fluid cooled garment
 [NASA-CASE-ARC-10599-1] c05 N73-26071

BLACKSTOCK, T. A.
 Ferry system
 [NASA-CASE-LAR-10574-1] c11 N73-13257

BLAIR, G. R.
 Inorganic thermal control pigment Patent
 [NASA-CASE-XMP-02139] c18 N71-24184

BLAISE, H. T.
 Air cushion lift pad Patent
 [NASA-CASE-HFS-14685] c31 N71-15689

Methods and apparatus employing vibratory energy for wrenching Patent [NASA-CASE-MFS-20586] c15 N71-17686

Remote manipulator system [NASA-CASE-MFS-22022-1] c37 N76-15460

BLANCHARD, W. S., JR.
Space capsule Patent [NASA-CASE-XLA-00149] c31 N70-37938
Space capsule Patent [NASA-CASE-XLA-01332] c31 N71-15664
Lateral displacement system for separated rocket stages Patent [NASA-CASE-XLA-04804] c31 N71-23008
Quiet jet transport aircraft [NASA-CASE-LAR-11087-1] c02 N73-26008
High lift aircraft [NASA-CASE-LAR-11252-1] c05 N75-25914

BLANCHET, J. P.
Electrical feed-through connection for printed circuit boards and printed cable [NASA-CASE-XMP-01483] c14 N69-27431

BLAND, C.
Bacteriostatic conformal coating and methods of application Patent [NASA-CASE-GSC-10007] c18 N71-16046

BLAND, W. H., JR.
Survival couch Patent [NASA-CASE-XLA-00118] c05 N70-33285

BLANKENSHIP, C. P.
Protective device for machine and metalworking tools Patent [NASA-CASE-XLE-01092] c15 N71-22797
Tantalum modified ferritic iron base alloys [NASA-CASE-LEW-12095-1] c26 N78-18182

BLAZE, C. J.
Formed metal ribbon wrap Patent [NASA-CASE-XLB-00164] c15 N70-36411

BLESS, J. J.
Shunt regulation electric power system [NASA-CASE-GSC-10135] c33 N78-17296

BLOCH, J. T.
Method and apparatus for fabricating improved solar cell modules [NASA-CASE-NPO-14416-1] c44 N79-18446

BLOOMFIELD, H. S.
In-situ laser retorting of oil shale [NASA-CASE-LEW-12217-1] c43 N78-14452

BLOSSER, E. E.
Method for determining presence of OH in magnesium oxide [NASA-CASE-NPO-10774] c06 N72-17095

BLUE, J. W.
Apparatus for producing high purity I-123 [NASA-CASE-LEW-10518-2] c24 N72-28714
Production of high purity I-123 [NASA-CASE-LEW-10518-1] c24 N72-33681
Method of producing I-123 [NASA-CASE-LEW-11390-2] c25 N76-27383
Production of I-123 [NASA-CASE-LEW-11390-3] c25 N76-29379
Targets for producing high purity I-123 [NASA-CASE-LEW-10518-3] c25 N78-27226

BLUM, P.
Rock sampling [NASA-CASE-XNP-10007-1] c46 N74-23068
Rock sampling [NASA-CASE-XNP-09755] c46 N74-23069

BLUME, H. C.
Parametric amplifiers with idler circuit feedback [NASA-CASE-LAR-10253-1] c09 N72-25258

BLUMRICH, J. P.
Pivotal shock absorbing pad assembly Patent [NASA-CASE-XNP-03856] c31 N70-34159
Landing pad assembly for aerospace vehicles Patent [NASA-CASE-XNP-02853] c31 N70-36654
Double-acting shock absorber Patent [NASA-CASE-XNP-01045] c15 N70-40354
Tank construction for space vehicles Patent [NASA-CASE-XNP-01899] c31 N70-41948
Docking structure for spacecraft Patent [NASA-CASE-XNP-05941] c31 N71-23912
Omnidirectional wheel [NASA-CASE-MFS-21309-1] c37 N74-18125

BLUTINGER, B.
Signal generator [NASA-CASE-XNP-05612] c09 N69-21468

BLYNILLER, E. R.
Microcircuit negative cutter [NASA-CASE-XLA-09843] c15 N72-27485

BOATRIGHT, W. B.
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds [NASA-CASE-LAR-10578-1] c12 N73-25262

BOCKWOLDT, W. H.
Narrow bandwidth video Patent [NASA-CASE-XMS-06740-1] c07 N71-26579

BOEDY, D. D.
Power supply circuit Patent [NASA-CASE-XMS-00913] c10 N71-23543

BOEHM, J.
Gravity device Patent [NASA-CASE-XNP-00424] c11 N70-38196

BOER, K. W.
High field CdS detector for infrared radiation [NASA-CASE-LAR-11027-1] c35 N74-18088

BOER, H. W.
Filter regeneration systems [NASA-CASE-HSC-14273-1] c34 N75-33342

BOGNER, R. S.
Storage battery comprising negative plates of a wedge shaped configuration [NASA-CASE-NPO-11806-1] c44 N74-19693

BOGUSZ, P. J.
Pressure transducer calibrator Patent [NASA-CASE-INP-01660] c14 N71-23036

BOIES, R. D.
Instrument for measuring potentials on two dimensional electric field plots Patent [NASA-CASE-XLA-08493] c10 N71-19421

BOISSEvain, A. G.
Optical machine tool alignment indicator Patent [NASA-CASE-XAC-09489-1] c15 N71-26673

BOLT, C. A., JR.
Broadband choke for antenna structure [NASA-CASE-XMS-05303] c07 N69-27462

BOLTON, P. W.
Penetrator nozzle [NASA-CASE-KSC-11064-1] c34 N78-22328

BOHACQUISTI, J.
An improved solar panel and method for fabricating the same [NASA-CASE-NPO-14490-1] c44 N79-18445

BOND, W. W.
Connector internal force gauge Patent [NASA-CASE-INP-03918] c14 N71-23087

BONISCH, P. H.
Locking redundant link [NASA-CASE-LAR-11900-1] c37 N79-14382

BOWN, J. L.
Wire grid forming apparatus Patent [NASA-CASE-XLE-00023] c15 N70-33330

BOWNER, T. P., JR.
Quiet jet transport aircraft [NASA-CASE-LAR-11087-1] c02 N73-26008

BOBO, P.
Recoverable single stage spacecraft booster Patent [NASA-CASE-XNP-01973] c31 N70-41588

BOODLEY, L. E.
Connector strips-positive, negative and T tabs [NASA-CASE-XGS-01395] c03 N69-21539

BOON, R. W.
Stable superconducting magnet [NASA-CASE-XNP-05373-1] c33 N79-21264

BOOTH, F. W.
Condenser - Separator [NASA-CASE-XLA-08645] c15 N69-21465
Separator Patent [NASA-CASE-XLA-00415] c15 N71-16079
Thermal pump-compressor for space use Patent [NASA-CASE-XLA-00377] c33 N71-17610
Soldering device Patent [NASA-CASE-XLA-08911] c15 N71-27214
Air removal device [NASA-CASE-XLA-8914] c15 N73-12492
Zero gravity liquid mixer [NASA-CASE-LAR-10195-1] c15 N73-19458
Centrifugal lyophobic separator [NASA-CASE-LAR-10194-1] c34 N74-30608
Air removal device [NASA-CASE-XLA-8914-2] c34 N76-23522
Zero gravity separator [NASA-CASE-LAR-10344-1] c35 N76-33470

BOOTH, R. A.
Solid state switch [NASA-CASE-XNP-09228] c09 N69-27500

BORELLI, M. T.
Adaptive tracking notch filter system Patent

INVENTOR INDEX

BRITT, T. O.

[NASA-CASE-IMP-01892]	c10 N71-22986	Solar energy trap	
BOROSON, H. R.		[NASA-CASE-MFS-22744-1]	c44 N76-24696
Wide range linear fluxgate magnetometer Patent		Thermal energy storage system	
[NASA-CASE-XGS-01587]	c14 N71-15962	[NASA-CASE-MFS-23167-1]	c44 N76-31667
BOSCO, G. B., JR.		Mount for continuously orienting a collector	
Rotating shaft seal Patent		dish in a system adapted to perform both	
[NASA-CASE-IMP-02862-1]	c15 N71-26294	diurnal and seasonal solar tracking	
BOSHERS, W. A.		[NASA-CASE-MFS-23267-1]	c35 N77-20401
Battery testing device		BRASCHWITZ, J. H.	
[NASA-CASE-MFS-20761-1]	c44 N74-27519	External liquid-spray cooling of turbine blades	
Rapid activation and checkout device for batteries		Patent	
[NASA-CASE-MFS-22749-1]	c44 N76-14601	[NASA-CASE-XLB-00037]	c28 N70-33372
Lead-oxygen dc power supply system having a		BRAUN, W.	
closed loop oxygen and water system		Ultraviolet atomic emission detector	
[NASA-CASE-MFS-23059-1]	c44 N76-27664	[NASA-CASE-HQB-10756-1]	c14 N72-25428
BOSTON, B. E.		BRAWNER, C. C.	
X-Y alphanumeric character generator for		Specific wavelength colorimeter	
oscilloscopes		[NASA-CASE-MSC-14081-1]	c35 N74-27860
[NASA-CASE-GSC-11582-1]	c33 N75-19517	BRAWNER, E. L.	
BOTTOMS, D. J.		Color perception tester	
Turnstile and flared cone UHF antenna		[NASA-CASE-KSC-10278]	c05 N72-16015
[NASA-CASE-LAR-10970-1]	c33 N76-14372	BREALT, R. F.	
BOULDIN, D. L.		System for the measurement of ultra-low stray	
Multilevel metallization method for fabricating		light levels	
a metal oxide semiconductor device		[NASA-CASE-MFS-23513-1]	c74 N79-11865
[NASA-CASE-MFS-23541-1]	c76 N79-14906	BRECKENRIDGE, R. A.	
BOURKE, D. G.		Vapor phase growth of groups 3-5 compounds by	
Data compression system with a minimum time		hydrogen chloride transport of the elements	
delay unit Patent		[NASA-CASE-LAR-11144-1]	c25 N75-26043
[NASA-CASE-IMP-08832]	c08 N71-12506	Magnetometer with a miniature transducer and	
BOUSHEAV, W. G.		automatic scanning	
Hingeless helicopter rotor with improved stability		[NASA-CASE-LAR-11617-2]	c35 N78-32397
[NASA-CASE-ARC-10807-1]	c05 N77-17029	BRECKINRIDGE, J. B.	
BOWER, K. F.		Interferometer	
Buffered analog converter		[NASA-CASE-NPO-14502-1]	c35 N79-19317
[NASA-CASE-KSC-10397]	c08 N72-25206	BREED, L. L.	
BOXWELL, D. A.		Fluorinated esters of polycarboxylic acids	
Acoustically swept rotor		[NASA-CASE-MFS-21040-1]	c06 N73-30098
[NASA-CASE-ARC-11106-1]	c05 N77-31130	BREED, L. W.	
BOYLE, J. C.		Preparation of ordered poly /arylenesiloxane/	
Balance torque meter Patent		polymers	
[NASA-CASE-XGS-01013]	c14 N71-23725	[NASA-CASE-IMP-10753]	c06 N71-11237
BOYLE, J. V., JR.		BREEZE, R. K.	
Adjustable attitude guide device Patent		Method and system for respiration analysis Patent	
[NASA-CASE-XLA-07911]	c15 N71-15571	[NASA-CASE-IMP-08403]	c05 N71-11202
Canister closing device Patent		BRENNAN, B. J.	
[NASA-CASE-XLA-01446]	c15 N71-21528	Derivation of a tangent function using an	
BOZAJIAN, J. H.		integrated circuit four-quadrant multiplier	
Thermal switch Patent		[NASA-CASE-MSC-13907-1]	c10 N73-26230
[NASA-CASE-IMP-00463]	c33 N70-36847	BREITWINNER, R.	
BOZEK, J. H.		High current electrical lead	
Flexible formulated plastic separators for		[NASA-CASE-LEW-10950-1]	c33 N74-27683
alkaline batteries		BREJCHA, A. G., JR.	
[NASA-CASE-LEW-12363-1]	c44 N76-19552	Coaxial cable connector Patent	
BRADFELD, S. P., III		[NASA-CASE-IMP-04732]	c09 N71-20851
Unbalanced quadrature demodulator		BRESHAARS, R. H.	
[NASA-CASE-MSC-14840-1]	c32 N77-24331	Plasma igniter for internal combustion engine	
BRADLEY, B. H.		[NASA-CASE-NPO-13828-1]	c37 N79-11405
Emergency earth orbital escape device		BREUER, D. H.	
[NASA-CASE-MSC-13281]	c31 N72-18859	Temperature compensated current source	
A method of delivering a vehicle to earth orbit		[NASA-CASE-MSC-11235]	c33 N78-17294
and returning the reusable portion thereof to		BREY, H.	
earth		Frequency division multiplex technique	
[NASA-CASE-MSC-12391]	c30 N73-12884	[NASA-CASE-KSC-10521]	c07 N73-20176
BRADY, J. C.		PH/CW radar system	
Surface roughness detector Patent		[NASA-CASE-MFS-22234-1]	c32 N79-10264
[NASA-CASE-XLA-00203]	c14 N70-34161	BRICKER, R. W.	
BRANDHORST, B. W., JR.		Mass measuring system Patent	
Rapidly pulsed, high intensity, incoherent light		[NASA-CASE-XMS-03371]	c05 N70-42000
source		BRIGHT, C. W.	
[NASA-CASE-XLE-2529-3]	c33 N74-20859	A prosthesis coupling	
High power laser apparatus and system		[NASA-CASE-KSC-11069-1]	c54 N78-22721
[NASA-CASE-XLE-2529-2]	c36 N75-27364	BRINICH, P. F.	
Solar cell assembly		Electrothermal rockets having improved heat	
[NASA-CASE-LEW-11549-1]	c44 N77-19571	exchangers Patent	
Application of semiconductor diffusants to solar		[NASA-CASE-XLB-01783]	c28 N70-34175
cells by screen printing		BRINKS, B. J.	
[NASA-CASE-LEW-12775-1]	c44 N79-11468	Plating nickel on aluminum castings Patent	
Back wall solar cell		[NASA-CASE-IMP-04148]	c17 N71-24830
[NASA-CASE-LEW-12236-2]	c44 N79-14528	BRISKEN, A. F.	
BRANSTETTER, J. R.		Automatic transponder	
Black-body furnace Patent		[NASA-CASE-GSC-12075-1]	c32 N77-31350
[NASA-CASE-XLE-01399]	c33 N71-15625	BRISSENDEN, R. F.	
BRANTLEY, J. W.		Cable arrangement for rigid tethering Patent	
Leading edge protection for composite blades		[NASA-CASE-XLA-02332]	c32 N71-17609
[NASA-CASE-LEW-12550-1]	c24 N77-19170	BRITT, T. O.	
BRANTLEY, L. W., JR.		Remote lightning monitor system	
Solar energy absorber		[NASA-CASE-KSC-11031-1]	c33 N79-11315
[NASA-CASE-MFS-22743-1]	c44 N76-22657		

BRITZ, W. J.
 Rapid activation and checkout device for batteries
 [NASA-CASE-MFS-22749-1] c44 N76-14601
 Lead-oxygen dc power supply system having a
 closed loop oxygen and water system
 [NASA-CASE-MFS-23059-1] c44 N76-27664

BROCK, F. J.
 Gauge calibration by diffusion
 [NASA-CASE-XGS-07752] c14 N73-30390
 Ultrahigh vacuum measuring ionization gauge
 [NASA-CASE-XLA-05087] c14 N73-30391

BROCKMAN, B. H.
 Charge storage diode modulators and demodulators
 [NASA-CASE-NPO-10189-1] c33 N77-21314
 Radio frequency arraying method for receivers
 [NASA-CASE-NPO-14328-1] c32 N79-14272

BRODER, J. D.
 Method of making electrical contact on silicon
 solar cell and resultant product Patent
 [NASA-CASE-XLE-04787] c03 N71-20492
 Method of making silicon solar cell array
 [NASA-CASE-LEW-11069-1] c44 N74-14784
 Covered silicon solar cells and method of
 manufacture
 [NASA-CASE-LEW-11065-2] c44 N76-14600
 Silicon nitride coated, plastic covered solar cell
 [NASA-CASE-LEW-11496-1] c44 N77-14580

BRODERICK, J. C.
 Solid state television camera system Patent
 [NASA-CASE-XMF-06092] c07 N71-24612

BRODERICK, R. F.
 Signal ratio system utilizing voltage controlled
 oscillators Patent
 [NASA-CASE-XMF-04367] c09 N71-23545
 Radar antenna system for acquisition and
 tracking Patent
 [NASA-CASE-XMS-09610] c07 N71-24625

BRODIE, S. B.
 Variable ratio mixed-mode bilateral master-slave
 control system for shuttle remote manipulator
 system
 [NASA-CASE-MSC-14245-1] c18 N75-27041

BROKL, S. S.
 Numerical computer peripheral interactive device
 with manual controls
 [NASA-CASE-NPO-11497] c08 N73-25206

BROMAN, C. L.
 Dual output variable pitch turbofan actuation
 system
 [NASA-CASE-LEW-12419-1] c07 N77-14025

BROOKS, A. D.
 Particulate and aerosol detector
 [NASA-CASE-LAR-11438-1] c35 N76-22509

BROOKS, D. E.
 A method for separating biological cells
 [NASA-CASE-MFS-23883-1] c51 N79-21743

BROOKS, G. W.
 Impact simulator Patent
 [NASA-CASE-XLA-00493] c11 N70-34786
 Flexible ring slosh damping baffle Patent
 [NASA-CASE-LAR-10317-1] c32 N71-16103
 Lunar penetrometer Patent
 [NASA-CASE-XLA-00934] c14 N71-22765

BROOKS, J. D.
 Continuously operating induction plasma
 accelerator Patent
 [NASA-CASE-XLA-01354] c25 N70-36946

BROOKS, E. A.
 Capacitive tank gaging apparatus being
 independent of liquid distribution
 [NASA-CASE-MFS-21629] c14 N72-22442

BROOKS, E. E.
 Water quality monitoring system
 [NASA-CASE-MSC-16778-1] c51 N78-22589
 Fluid sample collection and distribution system
 [NASA-CASE-MSC-16841-1] c51 N78-22590

BROSB, A.
 Flow separation detector
 [NASA-CASE-ARC-11046-1] c35 N78-14364

BROUSSARD, R.
 Optical tracking mount Patent
 [NASA-CASE-MFS-14017] c14 N71-26627

BROWELL, E. V.
 Two wavelength double pulse tunable dye laser
 [NASA-CASE-LAR-12012-1] c36 N77-10517

BROWN, C. E.
 G conditioning suit Patent
 [NASA-CASE-XLA-02898] c05 N71-20268

BROWN, D.
 Radial module space station Patent
 [NASA-CASE-XMS-01906] c31 N70-41373

BROWN, D. W.
 Phase-locked loop with sideband rejecting
 properties Patent
 [NASA-CASE-XNP-02723] c07 N70-41680

BROWN, E. L.
 Sprayable low density ablator and application
 process
 [NASA-CASE-MFS-23506-1] c24 N78-24290

BROWN, G. A.
 Integrated circuit including field effect
 transistor and cermet resistor
 [NASA-CASE-GSC-10835-1] c09 N72-33205

BROWN, G. V.
 Method of fabricating a twisted composite
 superconductor
 [NASA-CASE-LEW-11015] c26 N73-32571
 Magnetocaloric pump
 [NASA-CASE-LEW-11672-1] c37 N74-27904
 Magnetic heat pumping
 [NASA-CASE-LEW-12508-2] c34 N77-32435
 Magnetic heat pumping
 [NASA-CASE-LEW-12508-1] c34 N78-17335

BROWN, H. E.
 Reaction tester
 [NASA-CASE-MSC-13604-1] c05 N73-13114

BROWN, J. W.
 Reduced gravity fecal collector seat and urinal
 [NASA-CASE-MFS-22102-1] c54 N74-20725

BROWN, K. H.
 Phase modulator Patent
 [NASA-CASE-MSC-13201-1] c07 N71-28429

BROWN, W. D.
 Deployable flexible tunnel
 [NASA-CASE-MFS-22636-1] c37 N76-22540

BROWN, P. A.
 Indomethacin-antihistamine combination for
 gastric ulceration control
 [NASA-CASE-ARC-11118-1] c52 N78-11692
 Indomethacin-antihistamine combination for
 gastric ulceration control
 [NASA-CASE-ARC-11118-2] c52 N79-14755

BROWN, R. E.
 Variable mixer propulsion cycle
 [NASA-CASE-LEW-12917-1] c07 N78-18067

BROWN, R. L.
 Gimbaled, partially submerged rocket nozzle Patent
 [NASA-CASE-XNP-01544] c28 N70-34162

BROWN, R. B.
 Multiple pass reimaging optical system
 [NASA-CASE-ARC-10194-1] c23 N73-20741

BROWN, W. E.
 A tool for use in joining connectors to shielded
 cables
 [NASA-CASE-NPO-14296-1] c37 N78-25432

BROWN, W. E., III
 Method and means for providing an absolute power
 measurement capability Patent
 [NASA-CASE-ERC-11020] c14 N71-26774
 Clear air turbulence detector
 [NASA-CASE-ERC-10081] c14 N72-28437
 Method and apparatus for measuring solar
 activity and atmospheric radiation effects
 [NASA-CASE-ERC-10276] c14 N73-26432

BROWNING, R. E.
 Flexible seal for valves Patent
 [NASA-CASE-XLE-00101] c15 N70-33376

BROYLES, H. P.
 Parallel plate viscometer Patent
 [NASA-CASE-XNP-09462] c14 N71-17584
 Method of making hollow elastomeric bodies
 [NASA-CASE-NPO-13535-1] c37 N76-31524
 Process for manufacturing cannula
 [NASA-CASE-NPO-14073-1] c52 N78-25762

BROYLES, H. H.
 Parallel plate viscometer Patent
 [NASA-CASE-XNP-09462] c14 N71-17584

BRUCE, B. W., JR.
 Computerized system for translating a torch head
 [NASA-CASE-MFS-23620-1] c37 N79-10421

BRUCE, E. A.
 Specialized halogen generator for purification
 of water Patent
 [NASA-CASE-XLA-08913] c14 N71-28933
 Air removal device
 [NASA-CASE-XLA-8914] c15 N73-12492

INVENTOR INDEX

BUSH, H. G.

Zero gravity liquid mixer
[NASA-CASE-LAR-10195-1] c15 N73-19458

Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608

Air removal device
[NASA-CASE-XLA-8914-2] c34 N76-23522

BRUNSTEIN, S. A.
Dual frequency microwave reflex feed
[NASA-CASE-NPO-13091-1] c09 N73-12214

BRYAN, C. J.
Autoignition test cell Patent
[NASA-CASE-KSC-10198] c11 N71-28629

BRYAN, H. B.
Wind tunnel model damper Patent
[NASA-CASE-XLA-09480] c11 N71-33612

BRYANT, E. L.
Fatigue testing device Patent
[NASA-CASE-XLA-02131] c32 N70-42003

Noncontacting method for measuring angular deflection
[NASA-CASE-LAR-12178-1] c74 N79-11866

BRYANT, W. H.
Digital controller for a Baum folding machine
[NASA-CASE-LAR-10688-1] c37 N74-21056

BRYSON, R. P.
Soil penetrometer
[NASA-CASE-XNP-05530] c14 N73-32321

BUBE, K. E.
An improved solar cell and method of forming the same
[NASA-CASE-NPO-14205-1] c44 N78-27541

BUCHANAN, R. I.
Hypersonic test facility Patent
[NASA-CASE-XLA-00378] c11 N71-15925

Hypersonic test facility Patent
[NASA-CASE-XLA-05378] c11 N71-21475

BUCHHELE, D. E.
Optical torque meter Patent
[NASA-CASE-XLE-00503] c14 N70-34818

BUCHHELD, T. A.
Superconductive accelerometer Patent
[NASA-CASE-XMP-01099] c14 N71-15969

BUCHMILLER, L. D.
Folded traveling wave maser structure Patent
[NASA-CASE-XNP-05219] c16 N71-15550

BUCKLEY, D. H.
Gas lubricant compositions Patent
[NASA-CASE-XLE-00353] c18 N70-39897

Metallic film diffusion for boundary lubrication Patent
[NASA-CASE-XLE-01765] c18 N71-10772

Alloys for bearings Patent
[NASA-CASE-XLE-05033] c15 N71-23810

Metallic film diffusion for boundary lubrication Patent
[NASA-CASE-XLE-10337] c15 N71-24046

BUHLER, G. V.
Meter for use in detecting tension in straps having predetermined elastic characteristics
[NASA-CASE-MPS-22189-1] c35 N75-19615

BULLINGER, H. B.
Photoetching of metal-oxide layers
[NASA-CASE-ERC-10108] c06 N72-21094

BUNCE, R. C.
Closed loop ranging system Patent
[NASA-CASE-XNP-01501] c21 N70-41930

Automatic carrier acquisition system
[NASA-CASE-NPO-11628-1] c07 N73-30113

BURKER, E. R., JR.
Automated equipotential plotter
[NASA-CASE-NPO-11134] c09 N72-21246

BURCH, C. F.
Grinding arrangement for ball nose milling cutters
[NASA-CASE-LAR-10450-1] c37 N74-27905

BURCH, J. L.
Two speed drive system
[NASA-CASE-MPS-20645-1] c37 N74-23070

Automatically operable self-leveling load table
[NASA-CASE-MPS-22039-1] c09 N75-12968

Actuator device for artificial leg
[NASA-CASE-MPS-23225-1] c52 N77-14735

Combined docking and grasping device
[NASA-CASE-MPS-23088-1] c37 N77-23483

Apparatus for assembling space structure
[NASA-CASE-MPS-23579-1] c18 N79-11108

BURCHAN, T. W.
Controlled release device Patent
[NASA-CASE-XKS-03338] c15 N71-24043

BURCHER, E. E.
Laser communication system for controlling several functions at a location remote to the laser
[NASA-CASE-LAR-10311-1] c16 N73-16536

Transmitting and reflecting diffuser
[NASA-CASE-LAR-10385-2] c70 N74-13436

Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014

Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613

Transmitting and reflecting diffuser
[NASA-CASE-LAR-10385-3] c74 N78-15879

Device for measuring the contour of a surface
[NASA-CASE-LAR-11869-1] c74 N78-27904

BURDIN, C.
Phase-locked servo system
[NASA-CASE-MPS-22073-1] c33 N75-13139

BURGETT, P. A.
Measuring device Patent
[NASA-CASE-XMS-01546] c14 N70-40233

Process for conditioning tanned sharkskin and articles made therefrom Patent
[NASA-CASE-XMS-09691-1] c18 N71-15545

BURK, S. H., JR.
Deployable flexible ventral fins for use as an emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421

BURKE, J. R.
Optical spin compensator
[NASA-CASE-XGS-02401] c14 N69-27485

BURKHART, J. A.
Magneto-plasma-dynamic arc thruster
[NASA-CASE-LEW-11180-1] c25 N73-25760

BURKLEY, R. A.
Panelized high performance multilayer insulation Patent
[NASA-CASE-MPS-14023] c33 N71-25351

BURKS, R. E., JR.
Infusible silazane polymer and process for producing same
[NASA-CASE-XNP-02526-1] c27 N79-21190

BURNETT, J. E.
Tissue macerating instrument
[NASA-CASE-LEW-12668-1] c52 N78-14773

BURNHAM, D. C.
Method and apparatus for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343

BURNS, E. A.
Ablative resin Patent
[NASA-CASE-XLE-05913] c33 N71-14032

Reinforced structural plastics
[NASA-CASE-LEW-10199-1] c27 N74-23125

BURNS, F. P.
Biomedical radiation detecting probe Patent
[NASA-CASE-XMS-01177] c05 N71-19440

BURNS, R. H.
High pulse rate high resolution optical radar system
[NASA-CASE-NPO-11426] c07 N73-26119

BURNS, R. K.
Protected isotope heat source
[NASA-CASE-LEW-11227-1] c73 N75-30876

BURROUS, C. E.
Temperature compensated light source using a light emitting diode
[NASA-CASE-ARC-10467-1] c09 N73-14214

BURROWS, D. L.
Insulating structure Patent
[NASA-CASE-XNP-00341] c15 N70-33323

BURTON, D. E.
Garments for controlling the temperature of the body Patent
[NASA-CASE-XMS-10269] c05 N71-24147

BURTON, W. A.
Endless tape cartridge Patent
[NASA-CASE-XGS-00769] c14 N70-41647

Annular slit colloid thruster Patent
[NASA-CASE-GSC-10709-1] c28 N71-25213

BOSEMANN, A.
Plasma accelerator Patent
[NASA-CASE-XLA-00675] c25 N70-33267

BUSH, H. G.
Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

Lightweight structural columns
[NASA-CASE-LAR-12095-1] c39 N77-27432

- BUTLER, D. B.
Miniature vibration isolator Patent
[NASA-CASE-XLA-01019] c15 N70-40156
Radio frequency filter device
[NASA-CASE-XLA-02609] c09 N72-25256
- BUTMAN, S.
Signal phase estimator
[NASA-CASE-NPO-11203] c10 N72-20224
Multichannel telemetry system
[NASA-CASE-NPO-11572] c07 N73-16121
Receiver with an improved phase lock loop in a
multichannel telemetry system with suppressed
carrier
[NASA-CASE-NPO-11593-1] c07 N73-28012
- BUTMAN, S. A.
Multiple rate digital command detection system
with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289
- BUZZARD, E. J.
Radial heat flux transformer
[NASA-CASE-NPO-10828] c33 N72-17948
- BYERS, D. C.
Electrostatic thruster with improved insulators
Patent
[NASA-CASE-XLE-01902] c28 N71-10574
Sputtering holes with ion beamlets
[NASA-CASE-LEW-11646-1] c20 N74-31269
- BYNUM, B. G.
Response analyzers for sensors Patent
[NASA-CASE-NPS-11204] c14 N71-29134
Ergometer
[NASA-CASE-NPS-21109-1] c05 N73-27941
- BYRD, A. W.
Heat pipe thermionic diode power system Patent
[NASA-CASE-XMP-05843] c03 N71-11055
Power system with heat pipe liquid coolant lines
Patent
[NASA-CASE-NPS-14114-2] c09 N71-24807
Isothermal cover with thermal reservoirs Patent
[NASA-CASE-NPS-20355] c33 N71-25353
Power system with heat pipe liquid coolant lines
Patent
[NASA-CASE-NPS-14114] c33 N71-27862
Thermoelectric power system
[NASA-CASE-NPS-22002-1] c44 N76-16612
- BYRD, J. D.
Elastomeric silazane polymers and process for
preparing the same Patent
[NASA-CASE-XMP-04133] c06 N71-20717
- BYRD, R. E.
Thermally conductive polymers
[NASA-CASE-GSC-11304-1] c06 N72-21105
- BYRNE, F.
BCD to decimal decoder Patent
[NASA-CASE-XKS-06167] c08 N71-24890
Video sync processor Patent
[NASA-CASE-KSC-10002] c10 N71-25865
Automatic frequency control loop including
synchronous switching circuits
[NASA-CASE-KSC-10393] c09 N72-21247
Digital servo controller
[NASA-CASE-KSC-10769-1] c33 N74-29556
- C**
- CABLE, C. W.
Solar cell assembly test method
[NASA-CASE-NPO-10401] c03 N72-20033
- CABLE, W. L.
Rotary solenoid shutter drive assembly and
rotary inertia damper and stop plate assembly
[NASA-CASE-GSC-11560-1] c33 N74-20861
- CACOSSA, R. A.
Method of detecting impending saturation of
magnetic cores
[NASA-CASE-ERC-10089] c23 N72-17747
- CABILL, K. J.
Catalyst surfaces for the chromous/chromic redox
couple
[NASA-CASE-LEW-13148-1] c44 N79-14538
- CABILL, M. E.
Positive locking check valve Patent
[NASA-CASE-XMS-09310] c15 N71-22706
- CAIRO, P. J.
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441
- CALABREDO, J. M.
Resilient wheel Patent
[NASA-CASE-NPS-13929] c15 N71-27091
- CALLAHAN, D. E.
Solid state television camera system Patent
[NASA-CASE-XMP-06092] c07 N71-24612
- CALVERT, H. F.
Modification and improvements to cooled blades
Patent
[NASA-CASE-XLE-00092] c15 N70-33264
- CALVERT, J. A.
Redundant motor drive system
[NASA-CASE-NPS-23777-1] c37 N78-28460
- CANACHO, S. L.
Protective circuit of the spark gap type
[NASA-CASE-XAC-08981] c09 N69-39897
- CANBERRA, J. E.
Overvoltage protection network
[NASA-CASE-ARC-10197-1] c33 N74-17929
- CANERON, J. E.
Method and system for in vivo measurement of
bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737
- CAMP, D. W.
Anemometer with braking mechanism Patent
[NASA-CASE-XMP-05224] c14 N71-23726
Barometers (peak wind speed anemometers)
[NASA-CASE-NPS-20916] c14 N73-25460
- CAMP, E. L.
Automatic signal range selector for metering
devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244
- CAMPBELL, B. A.
Epoxy-aziridine polymer product Patent
[NASA-CASE-NPO-10701] c06 N71-28620
- CAMPBELL, C. C., JR.
Discrete local altitude sensing device Patent
[NASA-CASE-XMS-03792] c14 N70-41812
- CAMPBELL, D. E.
Method of making a rocket nozzle
[NASA-CASE-XMP-06884-1] c20 N79-21123
- CAMPBELL, D. E.
Time division radio relay synchronizing system
using different sync code words for in sync
and out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773
- CAMPBELL, F. D.
Radiant source tracker independent of
nonconstant irradiance
[NASA-CASE-NPO-11686] c14 N73-25462
- CAMPBELL, G. E.
Self-recording portable soil penetrometer
[NASA-CASE-NPS-20774] c14 N73-19420
- CAMPBELL, G. W.
Method and system for respiration analysis Patent
[NASA-CASE-XPR-08403] c05 N71-11202
- CAMPBELL, J. G.
Multislit film cooled pyrolytic graphite rocket
nozzle Patent
[NASA-CASE-XMP-04389] c28 N71-20942
Tube sealing device Patent
[NASA-CASE-NPO-10431] c15 N71-29132
- CAMPBELL, R. A.
Redundant hydraulic control system for actuators
[NASA-CASE-NPS-20944] c15 N73-13466
- CAMPBELL, R. B., JR.
Focused laser Doppler velocimeter
[NASA-CASE-NPS-23178-1] c35 N77-10493
- CAMPBELL, T. G.
Omnidirectional slot antenna for mounting on
cylindrical space vehicle
[NASA-CASE-LAR-10163-1] c09 N72-25247
Microstrip back-fire antenna
[NASA-CASE-LAR-12172-1] c32 N78-29310
- CAMPEN, C. F., JR.
Automated system for identifying traces of
organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245
- CANCHRO, C. A.
Low power drain semi-conductor circuit
[NASA-CASE-XGS-04999] c09 N69-24317
Wide range data compression system Patent
[NASA-CASE-XGS-02612] c08 N71-19435
Passive synchronized spike generator with high
input impedance and low output impedance and
capacitor power supply Patent
[NASA-CASE-XGS-03632] c09 N71-23311
Fast response low power drain logic circuits
[NASA-CASE-GSC-10878-1] c10 N72-22236
- CANICATTI, C. L.
Voltage monitoring system
[NASA-CASE-KSC-10736-1] c33 N75-19521

INVENTOR INDEX

CHAMBERS, A. B.

CANNING, T. W.
Shock-layer radiation measurement [NASA-CASE-IAC-02970] c14 N69-39896
Hypervelocity gun Patent [NASA-CASE-IAC-05902] c11 N71-18578
Heater-mixer for stored fluids [NASA-CASE-ABC-10442-1] c35 N74-15093
Bimetallic fluid displacement apparatus [NASA-CASE-ABC-10441-1] c35 N74-15126

CANTOR, C.
Attitude control system Patent [NASA-CASE-IGS-04393] c21 N71-14159
Amplifier clamping circuit for horizon scanner Patent [NASA-CASE-XGS-01784] c10 N71-20782
Roll alignment detector [NASA-CASE-GSC-10514-1] c14 N72-20379

CANVEL, H.
Video communication system and apparatus Patent [NASA-CASE-IHP-06611] c07 N71-26102

CAPLETTE, R. K.
Current steering commutator [NASA-CASE-NPO-10743] c08 N72-21199

CAPPS, J. E.
Two-step rocket engine bipropellant valve Patent [NASA-CASE-IHS-04890-1] c15 N70-22192

CAREW, R. P.
Dual solid cryogenics for spacecraft refrigeration Patent [NASA-CASE-GSC-10188-1] c23 N71-24725

CARL, C.
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system [NASA-CASE-NPO-11302-1] c07 N73-13149
Method and apparatus for a single channel digital communications system [NASA-CASE-NPO-11302-2] c32 N74-10132
Digital second-order phase-locked loop [NASA-CASE-NPO-11905-1] c33 N74-12887

CARL, G. R.
Air conditioned suit [NASA-CASE-LAR-10076-1] c05 N73-20137

CARLE, C. E.
Reel safety brake [NASA-CASE-GSC-11960-1] c37 N77-14479

CARLISLE, T. E.
Method and apparatus for controllably heating fluid Patent [NASA-CASE-IHP-04237] c33 N71-16278

CARLSON, A. W.
Pulse-width modulation multiplier Patent [NASA-CASE-XER-09213] c07 N71-12390

CARLSON, B. W.
Supersonic aircraft Patent [NASA-CASE-ILA-04451] c02 N71-12243

CARLSON, W. C. A.
Electric arc device for heating gases Patent [NASA-CASE-IAC-00319] c25 N70-41628

CARMIN, D. L., JR.
Anti-fog composition [NASA-CASE-MSC-13530-2] c23 N75-14834

CARMODY, R. J.
Honeycomb panel and method of making same Patent [NASA-CASE-IHP-01402] c18 N71-21651

CARON, P. R.
Logarithmic function generator utilizing an exponentially varying signal in an inverse manner [NASA-CASE-ERC-10267] c09 N72-23173
Phase control circuits using frequency multiplications for phased array antennas [NASA-CASE-ERC-10285] c10 N73-16206

CARPINI, T. D.
Flow velocity and directional instrument [NASA-CASE-LAR-10855-1] c14 N73-13415

CARR, W. F.
Split nut separation system Patent [NASA-CASE-IHP-06914] c15 N71-21489

CARRAWAY, J. B.
Miniature multichannel biotelemetry system [NASA-CASE-NPO-13065-1] c52 N74-26625

CARROLL, W. F.
Stabilized zinc oxide coating compositions Patent [NASA-CASE-IHP-07770-2] c18 N71-26772

CARSON, J. W.
Quasi-optical microwave component Patent [NASA-CASE-ERC-10011] c07 N71-29065

CARSON, L. M.
Discriminator aided phase lock acquisition for suppressed carrier signals [NASA-CASE-NPO-14311-1] c32 N79-14276
PN lock indicator for dithered PN code tracking loop [NASA-CASE-NPO-14435-1] c33 N79-18224

CARSON, P. R.
Array phasing device Patent [NASA-CASE-ERC-10046] c10 N71-18722

CARSON, W. W., JR.
Didymium hydrate additive to nickel hydroxide electrodes Patent [NASA-CASE-IGS-03505] c03 N71-10608

CARTER, A. F.
Plasma accelerator Patent [NASA-CASE-ILA-00675] c25 N70-33267
Method and apparatus for producing a plasma Patent [NASA-CASE-ILA-00147] c25 N70-34661

CARTER, J. H.
Sprayable low density ablator and application process [NASA-CASE-MPS-23506-1] c24 N78-24290

CARTER, W. K.
Emergency earth orbital escape device [NASA-CASE-MSC-13281] c31 N72-18859

CARUSO, A. J.
Sorption vacuum trap Patent [NASA-CASE-XER-09519] c14 N71-18483

CARUSO, V. P.
Method of peening and portable peening gun [NASA-CASE-MPS-23047-1] c37 N76-18454

CASE, E. C.
Space suit [NASA-CASE-MSC-12609-1] c05 N73-32012

CASEY, L. O.
Electrical load protection device Patent [NASA-CASE-MSC-12135-1] c09 N71-12526

CASH, W. H.
A signal attenuator [NASA-CASE-FRC-11012-1] c33 N78-28339

CASHION, K. D.
Solar optical telescope dome control system Patent [NASA-CASE-MSC-10966] c14 N71-19568
Radiation detector readout system Patent [NASA-CASE-IHS-03478] c14 N71-21040

CASON, R. L.
Apparatus including a plurality of spaced transformers for locating short circuits in cables [NASA-CASE-KSC-10899-1] c33 N79-18193

CASTLE, K. D.
Shielded conductor cable system [NASA-CASE-MSC-12745-1] c33 N77-13338

CASTLEMAN, K. R.
Automated clinical system for chromosome analysis [NASA-CASE-NPO-13913-1] c52 N79-12694

CATLAW, T. G.
High contrast cathode ray tube [NASA-CASE-ERC-10468] c09 N72-20206

CAUDILL, L. O.
Long range laser traversing system [NASA-CASE-GSC-11262-1] c36 N74-21091

CECCON, H. L.
Optical pump and driver system for lasers [NASA-CASE-ERC-10283] c16 N72-25485

CELLIER, A.
Digital numerically controlled oscillator [NASA-CASE-MSC-16747-1] c33 N79-17138

CEPOLINA, P. J.
Strain gauge measuring techniques Patent [NASA-CASE-IGS-04478] c14 N71-24233

CHENI, D. J.
Hydrogen-rich gas generator [NASA-CASE-NPO-13560-1] c44 N77-10636

CHERVENKA, P. O.
External bulb variable volume maser [NASA-CASE-GSC-12334-1] c36 N79-14362

CHAMBERLAIN, P. R.
Optical binocular scanning apparatus [NASA-CASE-NPO-11002] c14 N72-22441
System for forming a quadrifid image comprising angularly related fields of view of a three dimensional object [NASA-CASE-NPO-14219-1] c35 N78-22348

CHAMBERS, A. B.
Temperature controller for a fluid cooled garment [NASA-CASE-ARC-10599-1] c05 N73-26071

Walking boot assembly
[NASA-CASE-ARC-11101-1] c54 N78-17675

CHANIS, C. C.
Hybrid composite laminate structures
[NASA-CASE-LEW-12118-1] c24 N77-27188

CHAMPINE, R. A.
Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229
Crosswind landing gear position indicator
[NASA-CASE-LAR-11941-1] c06 N77-20098

CHANDLER, J. A.
Discrete local altitude sensing device Patent
[NASA-CASE-XMS-03792] c14 N70-41812
Line cutter Patent
[NASA-CASE-XMS-04072] c15 N70-42017
Spacecraft radiator cover Patent
[NASA-CASE-HSC-12049] c31 N71-16080
Winch having cable position and load indicators
Patent
[NASA-CASE-HSC-12052-1] c15 N71-24599

CHANDLER, W. A.
Cryogenic storage system Patent
[NASA-CASE-XMS-04390] c31 N70-41871

CHANEY, R. R.
A method of prepurifying metallurgical grade
silicon employing reduced pressure atmospheric
control
[NASA-CASE-NFO-14474-1] c26 N78-27255

CHANG, C. C.
Microwave integrated circuit for Josephson
voltage standards
[NASA-CASE-NFS-23845-1] c33 N78-32347

CHAO, J. I. L.
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694

CHAPMAN, C. P.
Switching circuit Patent
[NASA-CASE-XNP-06505] c10 N71-24799
Peak acceleration limiter for vibrational tester
Patent
[NASA-CASE-NPO-10556] c14 N71-27185
Apparatus for recovering matter adhered to a
host surface
[NASA-CASE-NPO-11213] c15 N73-20514
Automated attendance accounting system
[NASA-CASE-NPO-11456] c08 N73-26176
Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123

CHAPMAN, R. M.
Inflation system for balloon type satellites
Patent
[NASA-CASE-XGS-03351] c31 N71-16081

CHAPPELLE, E. W.
Use of the enzyme hexokinase for the reduction
of inherent light levels
[NASA-CASE-XGS-05533] c04 N69-27487
Light detection instrument Patent
[NASA-CASE-XGS-05534] c23 N71-16355
Lyophilized reaction mixtures Patent
[NASA-CASE-XGS-05532] c06 N71-17705
Flavin coenzyme assay
[NASA-CASE-GSC-10565-1] c06 N72-25149
Method of detecting and counting bacteria in
body fluids
[NASA-CASE-GSC-11092-2] c04 N73-27052
Protein sterilization method of firefly
luciferase using reduced pressure and
molecular sieves
[NASA-CASE-GSC-10225-1] c06 N73-27086
Automatic instrument for chemical processing to
detect microorganism in biological samples by
measuring light reactions
[NASA-CASE-GSC-11169-2] c05 N73-32011
Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-29891
Application of luciferase assay for ATP to
antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794
Rapid, quantitative determination of bacteria in
water
[NASA-CASE-GSC-12158-1] c51 N78-22585
Method and apparatus for continuous measurement
of bacterial content of aqueous samples
[NASA-CASE-HSC-16779-1] c51 N78-22586
Determination of antimicrobial susceptibilities
on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750

CHARLES, J. F.
A floating nut retention system

[NASA-CASE-HSC-16938-1] c37 N78-32431

CHARLTON, K. W.
Pneumatic system for controlling and actuating
pneumatic cyclic devices
[NASA-CASE-XMS-04843] c03 N69-21469

CHARNOSKY, A. J.
Tool attachment for spreading loose elements
away from work Patent
[NASA-CASE-XMP-02107] c15 N71-10809

CHASE, E. W.
Helmet latching and attaching ring
[NASA-CASE-XMS-04670] c54 N78-17678

CHASE, W. D.
Vehicle simulator binocular multiplanar visual
display system
[NASA-CASE-ARC-10808-1] c09 N76-24280
Spectrally balanced chromatic landing approach
lighting system
[NASA-CASE-ARC-10990-1] c04 N77-12031
Full color hybrid display for aircraft simulators
[NASA-CASE-ARC-10903-1] c09 N78-18083

CHATTERJEE, J. S.
Dielectric loaded aperture antenna
[NASA-CASE-LAR-11084-1] c09 N73-12216

CHEATHAM, D. C.
Spacecraft docking and alignment system
[NASA-CASE-HSC-12559-1] c18 N76-14186

CHEN, C. J.
Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

CHEN, W.
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566

CHEN, W. S.
Wind tunnel microphone structure Patent
[NASA-CASE-XNP-00250] c11 N71-28779

CHENG, D. Y.
Reversed cowl flap inlet thrust augmentor
[NASA-CASE-ARC-10754-1] c07 N75-24736
Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131
System for measuring Reynolds in a turbulently
flowing fluid
[NASA-CASE-ARC-10755-2] c34 N76-27517
System for measuring three fluctuating velocity
components in a turbulently flowing fluid
[NASA-CASE-ARC-10974-1] c34 N77-27345

CHENG, S. I.
Pyrolysis system and process
[NASA-CASE-HSC-12669-1] c44 N76-16621

CHEERDAK, A. S.
Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407

CHEERHOFF, R. C.
Phase conjugation method and apparatus for an
active retrodirective antenna array
[NASA-CASE-NPO-13641-1] c32 N77-24340
Frequency translating phase conjugation circuit
for active retrodirective antenna array
[NASA-CASE-NPO-14536-1] c32 N79-14277

CHESTNUT, D.
Variably positioned guide vanes for aerodynamic
choking
[NASA-CASE-LAR-10642-1] c07 N74-31270

CHI, K.
High pulse rate high resolution optical radar
system
[NASA-CASE-NPO-11426] c07 N73-26119

CHIAO, R. Y.
Optical frequency waveguide Patent
[NASA-CASE-HQN-10541-1] c07 N71-26291
Optical frequency waveguide and transmission
system
[NASA-CASE-HQN-10541-3] c23 N72-23695

CHILDRESS, J. D.
Process for the preparation of brushite crystals
[NASA-CASE-ERC-10338] c04 N72-33072

CHILDS, J. H.
High-vacuum condenser tank for ion rocket tests
Patent
[NASA-CASE-XLE-00168] c11 N70-33278
Electric propulsion engine test chamber Patent
[NASA-CASE-XLE-00252] c11 N70-34844

CHILENSKI, J. J.
Ignition system for monopropellant combustion
devices Patent
[NASA-CASE-XNP-00249] c28 N70-38249

CHILTON, R. G.
Space capsule Patent

INVENTOR INDEX

CLIFF, R. A.

[NASA-CASE-XLA-00149] c31 N70-37938
 Space capsule Patent
 [NASA-CASE-XLA-01332] c31 N71-15664
CHIOA, R. Y.
 Laser machining apparatus Patent
 [NASA-CASE-HQN-10541-2] c15 N71-27135
 Optical frequency waveguide and transmission
 system Patent
 [NASA-CASE-HQN-10541-4] c16 N71-27183
CHISEL, D. M.
 Fluidic proportional thruster system
 [NASA-CASE-ARC-10106-1] c28 N72-22769
CHONG, C. F.
 Flipflop interrogator and bi-polar current
 driver Patent
 [NASA-CASE-XGS-03058] c10 N71-19547
CHOW, E. Y.
 Elastic universal joint Patent
 [NASA-CASE-XNP-00416] c15 N70-36947
CHOWNING, D.
 Emergency earth orbital escape device
 [NASA-CASE-MSC-13281] c31 N72-18859
CHREITZBERG, A. M.
 Electric battery and method for operating same
 Patent
 [NASA-CASE-XGS-01674] c03 N71-29129
CHRISTENSEN, W. W.
 Chelate-modified polymers for atmospheric gas
 chromatography
 [NASA-CASE-ARC-11154-1] c27 N78-27275
CHRISTIAN, L. M.
 Resuscitation apparatus Patent
 [NASA-CASE-XMS-01115] c05 N70-39922
CHRISTOPHER, P. A.
 Method of fabricating an object with a thin wall
 having a precisely shaped slit
 [NASA-CASE-LAR-10409-1] c31 N74-21059
CHRISTY, C. L., JR.
 Infusible silazane polymer and process for
 producing same
 [NASA-CASE-IMP-02526-1] c27 N79-21190
CHU, T. L.
 Growth of gallium nitride crystals
 [NASA-CASE-LAR-11302-1] c25 N75-13054
 Fabrication of polycrystalline solar cells on
 low-cost substrates
 [NASA-CASE-GSC-12022-1] c44 N76-28635
 Process for utilizing low-cost graphite
 substrates for polycrystalline solar cells
 [NASA-CASE-GSC-12022-2] c44 N78-24609
CHUMLEY, J. P.
 Zero gravity apparatus Patent
 [NASA-CASE-IMP-06515] c14 N71-23227
CHUTJIAN, A.
 High resolution threshold photoelectron
 spectroscopy by electron attachment
 [NASA-CASE-NPO-14078-1] c76 N78-13917
CIEPLUCH, C. C.
 Apparatus for igniting solid propellants Patent
 [NASA-CASE-XLE-00207] c28 N70-33375
 Method of igniting solid propellants Patent
 [NASA-CASE-XLE-01988] c27 N71-15634
CISSELL, R. E.
 Threadless fastener apparatus Patent
 [NASA-CASE-XPR-05302] c15 N71-23254
CISZEK, T. F.
 Production of crystals from molten solutions
 [NASA-CASE-NPO-13969-2] c76 N77-30984
 A method of growing a ribbon crystal
 particularly suited for facilitating automated
 control of ribbon width
 [NASA-CASE-NPO-14295-1] c76 N78-24952
CLAPP, W. M.
 Increasing efficiency of switching type
 regulator circuits Patent
 [NASA-CASE-XMS-09352] c09 N71-23316
CLARK, F. L.
 Hypersonic test facility Patent
 [NASA-CASE-XLA-00378] c11 N71-15925
 Hypersonic test facility Patent
 [NASA-CASE-XLA-05378] c11 N71-21475
CLARK, H. K.
 Thermal pump-compressor for space use Patent
 [NASA-CASE-XLA-00377] c33 N71-17610
CLARK, J. E.
 Automated fluid chemical analyzer Patent
 [NASA-CASE-IMP-09451] c06 N71-26754
CLARK, K. E.
 End effector device
 [NASA-CASE-MPS-23692-1] c54 N78-19773
 Pneumatic inflatable end effector
 [NASA-CASE-MPS-23696-1] c54 N78-32724
 Apparatus for assembling space structure
 [NASA-CASE-MPS-23579-1] c18 N79-11108
CLARK, R. L.
 Deposition apparatus
 [NASA-CASE-LAR-10541-1] c15 N72-32487
CLARK, R. T.
 Horn feed having overlapping apertures Patent
 [NASA-CASE-GSC-10452] c07 N71-12396
CLARKE, D. R.
 Thermal compression bonding of interconnectors
 [NASA-CASE-GSC-10303] c15 N72-22487
CLATTERBUCK, C. H.
 Spacecraft battery seals
 [NASA-CASE-XGS-03864] c15 N69-24320
 Process for making RF shielded cable connector
 assemblies and the products formed thereby
 [NASA-CASE-GSC-11215-1] c09 N73-28083
 Microscope multi-angle, reflection, viewing
 adaptor and photographic recording system
 [NASA-CASE-GSC-11690-1] c14 N73-28499
CLAUSS, R. C.
 Transmission line thermal short Patent
 [NASA-CASE-IMP-09775] c09 N71-20445
 Circulator having quarter wavelength resonant
 post and parametric amplifier circuits
 utilizing the same Patent
 [NASA-CASE-IMP-02140] c09 N71-23097
 High-gain, broadband traveling wave maser Patent
 [NASA-CASE-NPO-10548] c16 N71-24831
 Maser for frequencies in the 7-20 GHz range
 [NASA-CASE-NPO-11437] c16 N72-28521
 Refrigerated coaxial coupling
 [NASA-CASE-NPO-13504-1] c33 N75-30430
 Reflected-wave maser
 [NASA-CASE-NPO-13490-1] c36 N76-31512
 Dielectric-loaded waveguide circulator for
 cryogenically cooled and cascaded maser
 waveguide structures
 [NASA-CASE-NPO-14254-1] c36 N78-22359
CLAWSON, G. T.
 Method and apparatus for checking fire detectors
 [NASA-CASE-GSC-11600-1] c35 N74-21019
CLAY, F. P., JR.
 Ionization vacuum gauge with all but the end of
 the ion collector shielded Patent
 [NASA-CASE-XLA-07424] c14 N71-18482
CLELAND, E. L.
 Gas diffusion liquid storage bag and method of
 use for storing blood
 [NASA-CASE-NPO-13930-1] c52 N79-14749
CLEMONS, G. W., JR.
 Deep space monitor communication satellite
 system Patent
 [NASA-CASE-XAC-06029-1] c31 N71-24813
CLEMONS, P. W.
 Device for configuring multiple leads
 [NASA-CASE-MPS-22133-1] c33 N74-26977
CLEMENT, W. G.
 Friction measuring apparatus Patent
 [NASA-CASE-IMP-08680] c14 N71-22995
CLEMENTS, P. A.
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 utilizing a coaxial cable under pressure
 [NASA-CASE-NPO-13138-1] c33 N74-17927
CLEMONS, D. L., JR.
 Thermal control of space vehicles Patent
 [NASA-CASE-XLA-01291] c33 N70-36617
CLEVELAND, G. J.
 Medical subject monitoring systems
 [NASA-CASE-MSC-14180-1] c52 N76-14757
CLICKNER, B. E., JR.
 Umbilical disconnect Patent
 [NASA-CASE-XLA-00711] c03 N71-12258
CLIFF, R. A.
 Data processor having multiple sections
 activated at different times by selective
 power coupling to the sections Patent
 [NASA-CASE-XGS-04767] c08 N71-12494
 Ripple add and ripple subtract binary counters
 Patent
 [NASA-CASE-XGS-04766] c08 N71-18602
 Apparatus for computing square roots Patent
 [NASA-CASE-XGS-04768] c08 N71-19437
 Digitally controlled frequency synthesizer Patent
 [NASA-CASE-XGS-02317] c09 N71-23525

SCR lamp driver
[NASA-CASE-GSC-10221-1] c09 N72-23171
Digital phase-locked loop
[NASA-CASE-GSC-11623-1] c33 N75-25040

CLIFF, W. C.
Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

CLINE, R. W.
Method and apparatus for optically monitoring
the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304

CLOTFELTER, W. H.
Apparatus for the determination of the existence
or non-existence of a bonding between two
members Patent
[NASA-CASE-MFS-13686] c15 N71-18132
Device for measuring the ferrite content in an
austenitic stainless-steel weld
[NASA-CASE-MFS-22907-1] c26 N76-18257
Method for measuring biaxial stress in a body
subjected to stress inducing loads
[NASA-CASE-MFS-23299-1] c39 N77-28511

CLOUGH, L. G.
Driving lamps by induction
[NASA-CASE-MFS-21214-1] c09 N73-30181

COBIN, J. C.
Latching mechanism Patent
[NASA-CASE-MSC-15474-1] c15 N71-26162

COCCA, F. J.
Method and apparatus for detecting surface ions
on silicon diodes and transistors
[NASA-CASE-ERC-10325] c15 N72-25457

COE, H. H.
High speed rolling element bearing
[NASA-CASE-LEW-10856-1] c15 N72-22490

COE, P. L., JR.
Supersonic transport
[NASA-CASE-LAR-11932-1] c05 N78-32086

COFFINBERRY, G. A.
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467
Fuel delivery system including heat exchanger
means
[NASA-CASE-LEW-12793-1] c37 N79-11403

COHEN, D.
Fluid sample collector Patent
[NASA-CASE-XMS-06767-1] c14 N71-20435

COHEN, E. A.
Audio frequency marker system
[NASA-CASE-NPO-11147] c14 N72-27408

COHEN, E. P.
Digital modulator and demodulator Patent
[NASA-CASE-ERC-10041] c08 N71-29138

COHEN, W. S.
Nitramine propellants
[NASA-CASE-NPO-14103-1] c28 N78-31255

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Microstrip back-fire antenna
[NASA-CASE-LAR-12172-1] c32 N78-29310

COHEN, R. A.
A method for selective gold diffusion of
monolithic silicon devices and/or circuits
Patent application
[NASA-CASE-ERC-10072] c09 N70-11148
Method and apparatus for stable silicon dioxide
layers on silicon grown in silicon nitride
ambient
[NASA-CASE-ERC-10073-1] c24 N74-19769

COHN, E. H.
Rechargeable battery which combats shape change
of the zinc anode
[NASA-CASE-HQN-10862-1] c44 N76-29699

COHN, R. B.
Acoustical transducer calibrating system and
apparatus
[NASA-CASE-FRC-10060-1] c14 N73-27379

COHN, S. B.
Dual band combiner for horn antenna
[NASA-CASE-NPO-14519-1] c32 N79-17068

COKER, L. E.
Quick disconnect latch and handle combination
Patent
[NASA-CASE-MFS-11132] c15 N71-17649

COLBURN, H. E.
Automatic instrument for chemical processing to
detect microorganism in biological samples by
measuring light reactions
[NASA-CASE-GSC-11169-2] c05 N73-32011

COLE, H. A., JR.
Method and apparatus for measuring the damping
characteristics of a structure
[NASA-CASE-ARC-10154-1] c14 N72-22440

COLE, P. T.
Low friction magnetic recording tape Patent
[NASA-CASE-XGS-00373] c23 N71-15978
System for recording and reproducing pulse code
modulated data Patent
[NASA-CASE-XGS-01021] c08 N71-21042
Friction measuring apparatus Patent
[NASA-CASE-XNP-08680] c14 N71-22995
Helical recorder arrangement for multiple
channel recording on both sides of the tape
[NASA-CASE-GSC-10614-1] c09 N72-11224

COLES, W. D.
Twisted multifilament superconductor
[NASA-CASE-LEW-11726-1] c26 N73-26752
Method of fabricating a twisted composite
superconductor
[NASA-CASE-LEW-11015] c26 N73-32571

COLLIER, L.
Garments for controlling the temperature of the
body Patent
[NASA-CASE-XMS-10269] c05 N71-24147

COLLIN, E. E.
Apparatus and method for skin packaging articles
[NASA-CASE-MFS-20855] c15 N73-27405

COLLINS, D. D.
Process for removing sulfur dioxide from gas
streams
[NASA-CASE-MSC-16299-1] c45 N77-31668
Simultaneous treatment of SO₂ containing stack
gases and waste water
[NASA-CASE-MSC-16258-1] c45 N79-12584

COLLINS, D. F., JR.
Fluid power transmitting gas bearing Patent
[NASA-CASE-ERC-10097] c15 N71-28465

COLLINS, E. R.
Automated multi-level vehicle parking system
[NASA-CASE-NPO-13058-1] c37 N77-22480
An improved system for slicing silicon wafers
[NASA-CASE-NPO-14406-1] c31 N79-10245

COLLINS, E. R., JR.
Impact energy absorbing system utilizing
fracturable material
[NASA-CASE-NPO-10671] c15 N72-20443

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Recovery of potable water from human wastes in
below-G conditions Patent
[NASA-CASE-XLA-03213] c05 N71-11207

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Flight control system
[NASA-CASE-MSC-13397-1] c21 N72-25595

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Phototropic composition of matter
[NASA-CASE-IGS-03736] c14 N72-22443

COMANT, J. E.
Television simulation for aircraft and space
flight Patent
[NASA-CASE-XPR-03107] c09 N71-19449

COME, C. D., JR.
Minimum induced drag airfoil body Patent
[NASA-CASE-XLA-00755] c01 N71-13410
Minimum induced drag airfoil body Patent
[NASA-CASE-XLA-05828] c01 N71-13411
Absolute focus lock for microscopes
[NASA-CASE-LAR-10184] c14 N72-22445
Process for control of cell division
[NASA-CASE-LAR-10773-3] c51 N77-25769

CONGER, C. C.
Inductance device with vacuum insulation
[NASA-CASE-LEW-10330-1] c09 N72-27226

CONIGLIO, G. V.
Petzval type objective including field shaping
lens Patent
[NASA-CASE-GSC-10700] c23 N71-30027

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Moment of inertia test fixture Patent
[NASA-CASE-XGS-01023] c14 N71-22992

CONNELL, E. W.
Flexible joint for pressurizable garment
[NASA-CASE-MSC-11072] c54 N74-32546

CONNOLLY, D. J.
Traveling wave tube circuit
[NASA-CASE-LEW-12013-1] c33 N79-10339

CONNOLLY, J. P.
Automatic real-time pair-feeding system for

INVENTOR INDEX

CREE, R. P.

animals
[NASA-CASE-ARC-10302-1] c51 N74-15778

CONNORS, J. P.
Annular rocket motor and nozzle configuration
Patent
[NASA-CASE-XLE-00078] c28 N70-33284
Annular supersonic decelerator or drogue Patent
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Penshape exhaust nozzle for supersonic engine
Patent
[NASA-CASE-XLE-00057] c28 N70-38711
Telescoping-spike supersonic inlet for aircraft
engines Patent
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Thrust and direction control apparatus Patent
[NASA-CASE-XLE-03583] c31 N71-17629

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Thrust vector control apparatus Patent
[NASA-CASE-XLE-00208] c28 N70-34294
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Frequency modulation demodulator threshold
extension device Patent
[NASA-CASE-MSC-12165-1] c07 N71-33696

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Method for detecting pollutants
[NASA-CASE-LAR-11405-1] c45 N76-31714

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Method of planetary atmospheric investigation
using a split-trajectory dual flyby mode Patent
[NASA-CASE-XAC-08494] c30 N71-15990

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Metering gun for dispensing precisely measured
charges of fluid
[NASA-CASE-MFS-21163-1] c54 N74-17853

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Detector panels-micrometeoroid impact Patent
[NASA-CASE-XLA-05906] c31 N71-16221

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Data transfer system Patent
[NASA-CASE-NPO-12107] c08 N71-27255

COON, G. W.
Vibrating element electrometer with output
signal magnified over input signal by a
function of the mechanical Q of the vibrating
element Patent
[NASA-CASE-XAC-02807] c09 N71-23021
Thermally cycled magnetometer Patent
[NASA-CASE-XAC-03740] c14 N71-26135
Trielectrode capacitive pressure transducer
[NASA-CASE-ARC-10711-2] c33 N76-21390

COOPER, C. R.
Underwater space suit pressure control regulator
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Underwater space suit pressure control regulator
[NASA-CASE-MFS-20332-2] c05 N73-25125

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Generator for a space power system Patent
[NASA-CASE-XLE-04250] c09 N71-20446
Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

COOPER, L. P.
Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122

COOPER, W. E.
Collapsible Apollo couch
[NASA-CASE-MSC-13140] c05 N72-11085

COPELAND, J. T., JR.
High speed photo-optical time recording
[NASA-CASE-KSC-10294] c14 N72-18411

CORBIN, P. L.
Automatic fatigue test temperature programmer
Patent
[NASA-CASE-XLA-02059] c33 N71-24276

CORNILLE, H. J., JR.
Stretch de-spin mechanism Patent
[NASA-CASE-XGS-00619] c30 N70-40016

CORNISE, S. D.
Flame detector operable in presence of proton
radiation
[NASA-CASE-MFS-21577-1] c19 N74-29410

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Nozzle Patent
[NASA-CASE-XLA-00154] c28 N70-33374
Cascade plug nozzle
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Cascade plug nozzle
[NASA-CASE-LAR-11674-1] c07 N76-18117

CORWIN, R. R.
Apparatus for determining thermophysical
properties of test specimens
[NASA-CASE-LAR-11883-1] c09 N77-27131

COSTAKOS, H. C.
Deployable flexible tunnel
[NASA-CASE-MFS-22636-1] c37 N76-22540

COSTEW, R. C.
Vortex generator for controlling the dispersion
of effluents in a flowing liquid
[NASA-CASE-LAR-12045-1] c34 N77-24423
Smokestack-mounted airfoil
[NASA-CASE-LAR-11669-1] c45 N79-10570

COSTES, W. C.
Self-recording portable soil penetrometer
[NASA-CASE-MFS-20774] c14 N73-19420

COSTOGUE, E. H.
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441

COSTON, R. H.
Dual solid cryogenics for spacecraft refrigeration
Patent
[NASA-CASE-GSC-10188-1] c23 N71-24725

COTE, C. E.
Display for binary characters Patent
[NASA-CASE-XGS-04987] c08 N71-20571

COUCH, R. H.
Apparatus for aiding a pilot in avoiding a
midair collision between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641
Phase modulating with odd and even finite power
series of a modulating signal
[NASA-CASE-LAR-11607-1] c32 N77-14292

COULBERT, C. D.
Multislot film cooled pyrolytic graphite rocket
nozzle Patent
[NASA-CASE-INP-04389] c28 N71-20942

COUVILLON, L. A., JR.
Signal-to-noise ratio estimating by taking ratio
of mean and standard deviation of integrated
signal samples Patent
[NASA-CASE-INP-05254] c07 N71-20791
Method and apparatus for frequency-division
multiplex communications by digital phase
shift of carrier
[NASA-CASE-NPO-11338] c08 N72-25208
Apparatus for deriving synchronizing pulses from
pulses in a single channel PCM communications
system
[NASA-CASE-NPO-11302-1] c07 N73-13149
Pseudonoise (PN) synchronization of data system
with derivation of clock frequency from
received signal for clocking receiver PN
generator
[NASA-CASE-INP-03623] c09 N73-28084
Method and apparatus for a single channel
digital communications system
[NASA-CASE-NPO-11302-2] c32 N74-10132

COWAN, J. J.
Holography utilizing surface plasmon resonances
[NASA-CASE-MFS-22040-1] c35 N74-26946

COWELL, T. E.
Aerodynamic spike nozzle Patent
[NASA-CASE-XGS-01143] c31 N71-15647

COX, J. A.
Analog-to-digital converter
[NASA-CASE-MSC-13110-1] c08 N72-22163

CRABILL, W. L.
Control system for rocket vehicles Patent
[NASA-CASE-XLA-01163] c21 N71-15582

CRAIG, R. A.
Reduction of nitric oxide emissions from a
combustor
[NASA-CASE-ARC-10814-2] c25 N77-31260

CRAWFORD, R.
Solar energy powered heliotrope
[NASA-CASE-GSC-10945-1] c21 N72-31637

CRAWFORD, W. E.
Drive circuit for minimizing power consumption
in inductive load Patent
[NASA-CASE-NPO-10716] c09 N71-24892

CREASTY, W. K.
Shock absorber Patent
[NASA-CASE-INS-03722] c15 N71-21530

CREE, D.
Amplifier drift tester
[NASA-CASE-INS-05562-1] c09 N69-39986

CREE, R. P.
Catalyst for growth of boron carbide single

- crystal whiskers
[NASA-CASE-XHQ-03903] c15 N69-21922
- CREEDON, J. P.
Weld-bonded titanium structures
[NASA-CASE-LAR-11549-1] c37 N77-11397
- CREEL, T. R., JR.
Apparatus for determining thermophysical
properties of test specimens
[NASA-CASE-LAR-11883-1] c09 N77-27131
- CREPEAU, P. C.
Flexible, repairable, portable material for
electrical connectors Patent
[NASA-CASE-XGS-05180] c18 N71-25881
- CRUSS, S. B.
Coaxial inverted geometry transistor having
buried emitter
[NASA-CASE-ARC-10330-1] c09 N73-32112
- CRUSSEY, J. E.
Display for binary characters Patent
[NASA-CASE-XGS-04987] c08 N71-20571
- CREWS, J. E., JR.
Strain coupled servo control system Patent
[NASA-CASE-XLA-08530] c32 N71-25360
- CRIBB, H. E.
Parasitic probe antenna Patent
[NASA-CASE-XKS-09348] c09 N71-13521
- Weatherproof helix antenna Patent
[NASA-CASE-XKS-08485] c07 N71-19493
- VHF/UHF parasitic probe antenna Patent
[NASA-CASE-XKS-09340] c07 N71-24614
- Validation device for spacecraft checkout
equipment Patent
[NASA-CASE-XKS-10543] c07 N71-26292
- Protective suit having an audio transceiver Patent
[NASA-CASE-KSC-10164] c07 N71-33108
- Collapsible high gain antenna
[NASA-CASE-KSC-10392] c07 N73-26117
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Personal propulsion unit Patent
[NASA-CASE-MFS-20130] c28 N71-27585
- CROFTS, D. E.
Heat flux sensor assembly
[NASA-CASE-XMS-05909-1] c14 N69-27459
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Vortex attenuation method
[NASA-CASE-LAR-12034-1] c02 N77-22045
- CROSWELL, W. F.
Omnidirectional microwave spacecraft antenna
Patent
[NASA-CASE-XLA-03114] c09 N71-22888
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[NASA-CASE-LAR-10545-1] c09 N72-21244
- Dielectric loaded aperture antenna
[NASA-CASE-LAR-11084-1] c09 N73-12216
- CROUCH, R. W.
Shrink-fit gas valve Patent
[NASA-CASE-XGS-00587] c15 N70-35087
- CROUCH, R. K.
Vapor phase growth of groups 3-5 compounds by
hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043
- CROUTHANEL, H. S.
An improved solar panel and method for
fabricating the same
[NASA-CASE-NPO-14490-1] c44 N79-18445
- CROW, R. E.
Wide band doubler and sine wave quadrature
generator
[NASA-CASE-NPO-11133] c10 N72-20223
- Filter for third order phase locked loops
[NASA-CASE-NPO-11941-1] c10 N73-27171
- Frequency discriminator and phase detector circuit
[NASA-CASE-NPO-11515-1] c33 N77-13315
- CROWELL, R. T.
System and method for refurbishing and
processing parachutes
[NASA-CASE-KSC-11042-1] c02 N78-22026
- CRUM, G. W.
Foot pedal operated fluid type exercising device
[NASA-CASE-HSC-11561-1] c05 N73-32014
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Vacuum pressure soldering technique
[NASA-CASE-LAR-10073-1] c37 N76-24575
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All-directional fastener Patent
[NASA-CASE-XLA-01807] c15 N71-10799
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[NASA-CASE-XLA-01326] c11 N71-21481
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Isolation coupling arrangement for a torque
measuring system
[NASA-CASE-XLA-04897] c15 N72-22482
- CUBBISON, R. W.
Thrust and direction control apparatus Patent
[NASA-CASE-XLE-03583] c31 N71-17629
- CUBLEY, H. D.
Antenna array phase quadrature tracking system
Patent
[NASA-CASE-HSC-12205-1] c07 N71-27056
- CUDDIHY, E. F.
Method of making hollow elastomeric bodies
[NASA-CASE-NPO-13535-1] c37 N76-31524
- Process for manufacturing cannula
[NASA-CASE-NPO-14073-1] c52 N78-25762
- CULLER, V. H.
Myocardium wall thickness transducer and
measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895
- Catheter tip force transducer for cardiovascular
research
[NASA-CASE-NPO-13643-1] c52 N76-29896
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Static pressure orifice system testing and
apparatus
[NASA-CASE-LAR-12269-1] c09 N78-33123
- CULP, D. E.
Process for preparing liquid metal electrical
contact device
[NASA-CASE-LEW-11978-1] c33 N77-26385
- Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323
- CUNNINGHAM, R. E.
Potable water dispenser
[NASA-CASE-MFS-21115-1] c54 N74-12779
- CUNNINGHAM, R. E.
Hydrostatic bearing support
[NASA-CASE-LEW-11158-1] c37 N77-28486
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Bi-carrier demodulator with modulation Patent
[NASA-CASE-IMF-01160] c07 N71-11298
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differential amplifier circuit Patent
[NASA-CASE-IMF-05195] c10 N71-24861
- Pulse width inverter Patent
[NASA-CASE-MFS-10068] c10 N71-25139
- Ratemeter
[NASA-CASE-MFS-20418] c14 N73-24473
- Induction motor control system with voltage
controlled oscillator circuit
[NASA-CASE-MFS-21465-1] c10 N73-32145
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Relay binary circuit Patent
[NASA-CASE-IMF-00421] c09 N70-34502
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Method of producing alternating ether siloxane
copolymers Patent
[NASA-CASE-XHF-02584] c06 N71-20905
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Torsional disconnect unit
[NASA-CASE-NPO-10704] c15 N72-20445
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[NASA-CASE-HQN-10703] c21 N73-13643
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tissue
[NASA-CASE-GSC-12173-1] c51 N79-10694
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[NASA-CASE-GSC-10131-1] c07 N71-24624

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Motor run-up system
[NASA-CASE-NPO-13374-1] c33 N75-19524
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Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028
- Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493
- Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

INVENTOR INDEX

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Multi-purpose wind tunnel reaction control model
block
[NASA-CASE-HSC-19706-1] c09 N78-31129

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[NASA-CASE-HFS-20333] c09 N71-13486
Method of and means for testing a
glancing-incidence mirror system of an X-ray
telescope
[NASA-CASE-HFS-22409-2] c74 N78-15880

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Method of fabricating an article with cavities
[NASA-CASE-LAR-10318-1] c31 N74-18089
Bonding method in the manufacture of continuous
regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

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schiff-base exchange reactions Patent
[NASA-CASE-XMP-08651] c06 N71-11236
Direct synthesis of polymeric schiff bases from
two amines and two aldehydes Patent
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Azine polymers and process for preparing the
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[NASA-CASE-XMP-08656] c06 N71-11242
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of acetals and amine compounds Patent
[NASA-CASE-XMP-08652] c06 N71-11243
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molecular weight Schiff base polymers prepared
in a monofunctional Schiff base Patent
[NASA-CASE-XMP-03074] c06 N71-24740

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controlled minority of clock elements
[NASA-CASE-HSC-12531-1] c35 N75-30504

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[NASA-CASE-NPO-13541-1] c37 N79-14383

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dimensional electric field plots Patent
[NASA-CASE-XLA-08493] c10 N71-19421

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independent of liquid distribution
[NASA-CASE-HFS-21629] c14 N72-22442

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[NASA-CASE-GSC-11425-1] c76 N74-20329
Radiation hardening of MOS devices by boron
[NASA-CASE-GSC-11425-2] c76 N75-25730

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[NASA-CASE-HFS-14685] c31 N71-15689
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Mechanical simulator of low gravity conditions
Patent
[NASA-CASE-HFS-10555] c11 N71-19494
Mechanically actuated triggered hand
[NASA-CASE-HFS-20413] c15 N72-21463
Sprag solenoid brake
[NASA-CASE-HFS-21846-1] c37 N74-26976
Orthotic arm joint
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Remote manipulator system
[NASA-CASE-HFS-22022-1] c37 N76-15460

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[NASA-CASE-XLE-00342] c28 N70-37980

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[NASA-CASE-HMP-01892] c10 N71-22986

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engines Patent
[NASA-CASE-HSC-12139-1] c28 N71-14058

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[NASA-CASE-GSC-10118-1] c07 N71-24621

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[NASA-CASE-IPR-05302] c15 N71-23254

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Patent
[NASA-CASE-HFS-11497] c28 N71-16224

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simultaneously acting as spectrometer and
diffractometer
[NASA-CASE-XNP-05231] c14 N73-28491

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Method and tool for machining a transverse slot
about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249

DAVID, H. E.
Insulated electrocardiographic electrodes
[NASA-CASE-HSC-14339-1] c05 N75-24716

DAVIDS, L. H.
Guidance and maneuver analyzer Patent
[NASA-CASE-XNP-09572] c14 N71-15621

DAVIDSON, A. C.
Spacecraft attitude sensor
[NASA-CASE-GSC-10890-1] c21 N73-30640

DAVIDSON, G. A.
Compact spectroradiometer
[NASA-CASE-HQN-10683] c14 N71-34389

DAVIDSON, J. E.
Ripple indicator
[NASA-CASE-KSC-10162] c09 N72-11225

DAVIDSON, J. S. W.
Centrifuge mounted motion simulator Patent
[NASA-CASE-XAC-00399] c11 N70-34815

DAVIES, W. D. T.
Correlation type phase detector
[NASA-CASE-GSC-11744-1] c33 N75-26243

DAVIS, A. J.
Fiber optic vibration transducer and analyzer
Patent
[NASA-CASE-XMP-02433] c14 N71-10616

DAVIS, B. K.
Spectral method for monitoring atmospheric
contamination of inert-gas welding shields
Patent
[NASA-CASE-XMP-02039] c15 N71-15871
Stud-bonding gun
[NASA-CASE-HFS-20299] c15 N72-11392
Solar energy power system
[NASA-CASE-HFS-21628-1] c44 N75-32581
Solar energy power system
[NASA-CASE-HFS-21628-2] c44 N76-23675

DAVIS, D. P.
Quick disconnect coupling
[NASA-CASE-NPO-11202] c15 N72-25450

DAVIS, E. J.
Cable stabilizer for open shaft cable operated
elevators
[NASA-CASE-KSC-10513] c15 N72-25453

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Anti-glare improvement for optical imaging
systems Patent
[NASA-CASE-NPO-10337] c14 N71-15604
Radiant energy intensity measurement system Patent
[NASA-CASE-XNP-06510] c14 N71-23797
Reference voltage switching unit
[NASA-CASE-NPO-11253] c09 N72-17157

DAVIS, J. G., JR.
Tube fabricating process
[NASA-CASE-LAR-10203-1] c15 N72-16330

DAVIS, J. P.
Multiducted electromagnetic pump Patent
[NASA-CASE-NPO-10755] c15 N71-27084
Shell side liquid metal boiler
[NASA-CASE-NPO-10831] c33 N72-20915
Uninsulated in-core thermionic diode
[NASA-CASE-NPO-10542] c09 N72-27228

DAVIS, J. W.
Burst diaphragm flow initiator Patent
[NASA-CASE-HFS-12915] c11 N71-17600
Wind tunnel test section
[NASA-CASE-HFS-20509] c11 N72-17183
Altitude simulation chamber for rocket engine
testing
[NASA-CASE-HFS-20620] c11 N72-27262

DAVIS, L. P.
Isolation coupling arrangement for a torque
measuring system
[NASA-CASE-XLA-04897] c15 N72-22482

DAVIS, W. S.
Decomposition unit Patent
[NASA-CASE-XNS-00583] c28 N70-38504

DAVIS, W. T.
Strain coupled servo control system Patent
[NASA-CASE-XLA-08530] c32 N71-25360

DAVISOW, E. H.
Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent
[NASA-CASE-ILE-01246] c14 N71-10797

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Gaseous control system for nuclear reactors
[NASA-CASE-ILE-04599] c22 N72-20597

DAWN, F. S.
Burn rate testing apparatus
[NASA-CASE-XMS-09690] c33 N72-25913
Lightweight electrically-powered flexible thermal laminate
[NASA-CASE-HSC-12662-1] c33 N79-12331

DAY, J. L.
Electrode for biological recording
[NASA-CASE-XMS-02872] c05 N69-21925
Pressed disc type sensing electrodes with ion-screening means Patent
[NASA-CASE-XMS-04212-1] c05 N71-12346
Method of making a perspiration resistant biopotential electrode
[NASA-CASE-HSC-90153-2] c05 N72-25120

DAYAN, V. H.
Hydrogen leak detection device Patent
[NASA-CASE-MFS-11537] c14 N71-20442

DEBNAM, W. J. J.
Magnetometer with a miniature transducer and automatic scanning
[NASA-CASE-LAR-11617-2] c35 N78-32397

DEBNAM, W. J., JR.
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043

DEBOO, G. J.
Gyrator type circuit Patent
[NASA-CASE-XAC-10608-1] c09 N71-12517
Feedback integrator with grounded capacitor Patent
[NASA-CASE-XAC-10607] c10 N71-23669
Precision rectifier with FET switching means Patent
[NASA-CASE-ARC-10101-1] c09 N71-33109
Phase shift circuit apparatus
[NASA-CASE-ARC-10269-1] c10 N72-16172
Temperature compensated light source using a light emitting diode
[NASA-CASE-ARC-10467-1] c09 N73-14214
Self-tuning bandpass filter
[NASA-CASE-ARC-10264-1] c09 N73-20231

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Failure detection and control means for improved drift performance of a gimballed platform system
[NASA-CASE-MFS-23551-1] c04 N76-26175

DECKER, A. J.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c33 N74-12913

DEDOLPH, R. D.
Rotary plant growth accelerating apparatus
[NASA-CASE-ARC-10722-1] c51 N75-25503

DEERKOSKI, L. P.
Signal-to-noise ratio determination circuit
[NASA-CASE-GSC-11239-1] c10 N73-25241
Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472
Pseudo noise code and data transmission method and apparatus
[NASA-CASE-GSC-12017-1] c32 N77-30308

DEFURIA, R. H.
Fluid power transmitting gas bearing Patent
[NASA-CASE-ERC-10097] c15 N71-28465

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Traversing probe Patent
[NASA-CASE-XFP-02007] c12 N71-24692

DEGRASSE, R. W.
Folded traveling wave maser structure Patent
[NASA-CASE-XNP-05219] c16 N71-15550

DEIS, B. C.
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[NASA-CASE-XLA-01494] c15 N71-24164
Drop foot corrective device
[NASA-CASE-LAR-12259-1] c54 N78-18762

DEL CASALE, L. A.
Signal generator
[NASA-CASE-XNP-05612] c09 N69-21468

DEL CURTO, B.
System for monitoring the presence of neutrals in a stream of ions Patent
[NASA-CASE-XNP-02592] c24 N71-20518

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Electronic divider and multiplier using photocells Patent
[NASA-CASE-XFP-05637] c09 N71-19480

DELANO, C. B.
Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N78-31232

DELAPLAIN, H. W.
Sweat collection capsule
[NASA-CASE-ARC-11031-1] c54 N78-22720
Rotary leveling base platform
[NASA-CASE-ARC-10981-1] c37 N78-27425

DELBATH, L. A.
Emergency earth orbital escape device
[NASA-CASE-HSC-13281] c31 N72-18859

DELBREGO, D. J.
Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028

DELIORBACK, L. W.
A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-MFS-23904-1] c20 N79-13077

DELUCA, J. J.
Segmented superconducting magnet for a broadband traveling wave maser Patent
[NASA-CASE-IGS-10518] c16 N71-28554
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992
Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

DELVIGS, P.
Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids
[NASA-CASE-LEW-11325-1] c06 N73-27980

DERING, J.
Rapid, quantitative determination of bacteria in water
[NASA-CASE-GSC-12158-1] c51 N78-22585

DERING, J. W.
Determination of antimicrobial susceptibilities on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750

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Low cycle fatigue testing machine
[NASA-CASE-LAR-10270-1] c32 N72-25877

DEROREST, K. E.
Self-lubricating gears and other mechanical parts Patent
[NASA-CASE-MFS-14971] c15 N71-24984

DERACI, D. E.
Clamping assembly for inertial components Patent
[NASA-CASE-XMS-02184] c15 N71-20813

DRO, H.
Dual purpose momentum wheels for spacecraft with magnetic recording
[NASA-CASE-NPO-11481] c21 N73-13644

DERING, V. G.
Vortex breach high pressure gas generator
[NASA-CASE-LAR-10549-1] c31 N73-13898

DEBB, L. J.
Direct radiation cooling of the collector of linear beam tubes
[NASA-CASE-XNP-09227] c15 N69-24319
Temperature-compensating means for cavity resonator of amplifier Patent
[NASA-CASE-XNP-00449] c14 N70-35220
Electron beam tube containing a multiple cathode array employing indexing means for cathode substitution Patent
[NASA-CASE-NPO-10625] c09 N71-26182
Thermostatic actuator
[NASA-CASE-NPO-10637] c15 N72-12409
Thermal motor
[NASA-CASE-NPO-11283] c09 N72-25260
Electrostatically controlled heat shutter
[NASA-CASE-NPO-11942-1] c33 N73-32818

DESCAMP, V. A.
Filter regeneration systems
[NASA-CASE-HSC-14273-1] c34 N75-33342

DESTREESE, J. G.
Thermionic tantalum emitter doped with oxygen

INVENTOR INDEX

DOHOVAN, G.

Patent Application
[NASA-CASE-NPO-11138] c03 N70-34646

DETWEILER, H. K.
High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814

DEVINE, E. J.
Optical tracker having overlapping reticles on
parallel axes Patent
[NASA-CASE-IGS-05715] c23 N71-16100

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Deformable vehicle wheel Patent
[NASA-CASE-MPS-20400] c31 N71-18611

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Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N79-18307

DI LOSA, V. J.
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lock Patent
[NASA-CASE-XGS-01222] c10 N71-20841

DIAMOND, D. D.
Stator rotor tools
[NASA-CASE-MSC-16000-1] c37 N78-24544

DIAMOND, R. E.
Central spar and module joint Patent
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DIBATTISTA, J. D.
Anti-meteoroid device
[NASA-CASE-LAR-10788-1] c31 N73-20880

Determining particle density using known
material Hugoniot curves
[NASA-CASE-LAR-11059-1] c76 N75-12810

Meteoroid impact position locator aid for manned
space station
[NASA-CASE-LAR-10629-1] c35 N75-33367

DICKENS, L. E.
Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

DICKERSON, G. E.
Composite lamination method
[NASA-CASE-LAR-12019-1] c24 N78-17150

DICKINSON, R. E.
Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

Thin conformal antenna array for microwave power
conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391

RF beam center location method and apparatus for
power transmission system
[NASA-CASE-NPO-13821-1] c44 N78-28594

Microwave power transmission beam safety system
[NASA-CASE-NPO-14224-1] c32 N79-10271

DIETRICH, F. J.
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860

DILL, W. P.
Method and automated apparatus for detecting
coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588

DILLARD, P. A.
Method of fabricating a photovoltaic of a
substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

DILLON, R. P., JR.
Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573

DINEFF, J.
Cryogenic apparatus for measuring the intensity
of magnetic fields
[NASA-CASE-XAC-02407] c14 N69-27423

Apparatus for coupling a plurality of ungrounded
circuits to a grounded circuit Patent
[NASA-CASE-XAC-00086] c09 N70-33182

Two-plane balance Patent
[NASA-CASE-XAC-00073] c14 N70-34813

Differential pressure cell Patent
[NASA-CASE-XAC-00042] c14 N70-34816

High speed low level electrical stepping switch
Patent
[NASA-CASE-XAC-00060] c09 N70-39915

Dynamic sensor Patent
[NASA-CASE-XAC-02877] c14 N70-41681

Electrostatic charged particle analyzer having
deflection members shaped according to the
periodic voltage applied thereto Patent
[NASA-CASE-XAC-05506-1] c24 N71-16095

Inertial reference apparatus Patent
[NASA-CASE-XAC-03107] c23 N71-16098

Thermal detector of electromagnetic energy by
means of a vibrating electrode Patent
[NASA-CASE-XAC-10768] c09 N71-18830

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signal magnified over input signal by a
function of the mechanical Q of the vibrating
element Patent
[NASA-CASE-XAC-02807] c09 N71-23021

Wide range dynamic pressure sensor
[NASA-CASE-ARC-10263-1] c14 N72-22438

Nondispersive gas analyzing method and apparatus
wherein radiation is serially passed through a
reference and unknown gas
[NASA-CASE-ARC-10308-1] c06 N72-31141

Chromato-fluorographic drug detector
[NASA-CASE-ARC-10633-1] c25 N74-26947

Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520

Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041

NDIR gas analyzer based on absorption modulation
ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502

Modulated hydrogen ion flame detector
[NASA-CASE-ARC-10322-1] c35 N76-18403

Method and apparatus for compensating reflection
losses in a path length modulated
absorption-absorption trace gas detector
[NASA-CASE-ARC-10631-1] c74 N76-20958

Nulling device for detection of trace gases by
NDIR absorption
[NASA-CASE-ARC-10760-1] c25 N76-22323

Integrated structure vacuum tube
[NASA-CASE-ARC-10445-1] c31 N76-31365

Optically selective, acoustically resonant gas
detecting transducer
[NASA-CASE-ARC-10639-1] c35 N78-13400

DIX, H. G.
Demodulation system Patent
[NASA-CASE-XAC-04030] c10 N71-19472

DIXON, G. V.
Active vibration isolator for flexible bodies
Patent
[NASA-CASE-LAR-10106-1] c15 N71-27169

DOBBS, E. F.
Cyclically operable optical shutter
[NASA-CASE-NPO-10758] c14 N73-14427

DOD, L. R.
Plural beam antenna
[NASA-CASE-GSC-11013-1] c09 N73-19234

DOLAND, G. D.
Method and apparatus for decoding compatible
convolutional codes
[NASA-CASE-MSC-14070-1] c32 N74-32598

Secure communication system
[NASA-CASE-MSC-16462-1] c32 N78-25274

Phased array antenna control
[NASA-CASE-MSC-14939-1] c32 N79-11264

DONAS, P. A.
Redundant disc
[NASA-CASE-LBW-12496-1] c07 N78-33101

DONBROWSKI, R. G.
Adjustable tension wire guide Patent
[NASA-CASE-XMS-02383] c15 N71-15918

DONALDSON, R. W., JR.
Gas chromatograph injection system
[NASA-CASE-ARC-10344-1] c14 N72-21433

Gas chromatograph injection system
[NASA-CASE-ARC-10344-2] c35 N75-26334

DONNELLY, P. C.
Prevention of pressure build-up in
electrochemical cells Patent
[NASA-CASE-XGS-01419] c03 N70-41864

DOWNINI, J. E.
Hydrogen fire blink detector
[NASA-CASE-MPS-15063] c14 N72-25412

DOWHUE, J. H.
Passive dual spin misalignment compensators
[NASA-CASE-GSC-11479-1] c35 N74-28097

Active nutation controller
[NASA-CASE-GSC-12273-1] c18 N78-23141

DOHOVAN, B. P.
Artificial gravity spin deployment system Patent
[NASA-CASE-INP-02595] c31 N71-21881

DOHOVAN, G.
Drying apparatus for photographic sheet material
[NASA-CASE-GSC-11074-1] c14 N73-28489

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Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

DOONG, B.
Analog to digital converter Patent
[NASA-CASE-XLA-00670] c08 N71-12501
Controllable high voltage source having fast
settling time
[NASA-CASE-GSC-11844-1] c33 N75-19522

DORNE, A.
Nose cone mounted heat resistant antenna Patent
[NASA-CASE-XMS-04312] c07 N71-22984

DOTSON, W. P., JR.
Digital to analog conversion apparatus
[NASA-CASE-HSC-12458-1] c08 N73-32081

DOTTS, R. L.
Thermal insulation protection means
[NASA-CASE-HSC-12737-1] c34 N77-22423

DOUGHERTY, B. B.
Rotary solenoid shutter drive assembly and
rotary inertia damper and stop plate assembly
[NASA-CASE-GSC-11560-1] c33 N74-20861

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Automatic signal range selector for metering
devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244

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Process of casting heavy slips Patent
[NASA-CASE-XLE-00106] c15 N71-16076

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Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407

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Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

DOV, W. P.
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[NASA-CASE-XLA-00013] c15 N71-29136

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Solid propellant rocket motor nozzle
[NASA-CASE-NPO-11458] c28 N72-23810
Solid propellant rocket motor
[NASA-CASE-NPO-11559] c28 N73-24784

DOWNING, R. G.
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441

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Patent
[NASA-CASE-XMS-02677] c31 N70-42075
Method for obtaining oxygen from lunar or
similar soil
[NASA-CASE-HSC-12408-1] c46 N74-13011

DOYLE, J. C.
Measuring device Patent
[NASA-CASE-XMS-01546] c14 N70-40233

DRESHFIELD, R. L.
Cobalt-base alloy
[NASA-CASE-LEW-10436-1] c17 N73-32415

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Multi-purpose wind tunnel reaction control model
block
[NASA-CASE-HSC-19706-1] c09 N78-31129

DREXHAGE, M. G.
Injection head for delivering liquid fuel and
oxidizers
[NASA-CASE-NPO-10046] c28 N72-17843

DRISCOLL, K. L.
Means for accommodating large overstrain in lead
wires
[NASA-CASE-LAR-10168-1] c33 N74-22865

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Flexible back-up bar Patent
[NASA-CASE-XMP-00722] c15 N70-40204

DU PONT, P. S.
Solar panel fabrication Patent
[NASA-CASE-XNP-03413] c03 N71-26726

DUBEY, H.
Central spar and module joint Patent
[NASA-CASE-XNP-02341] c15 N71-21531

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Guide for a typewriter
[NASA-CASE-HFS-15218-1] c37 N77-19457

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Patent
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[NASA-CASE-GSC-10390-1] c07 N72-11149

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Foldable conduit Patent
[NASA-CASE-XLE-00620] c32 N70-41579

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Ellipsoidal mirror reflectometer including means
for averaging the radiation reflected from the
sample Patent
[NASA-CASE-IGS-05291] c23 N71-16341

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Water separator
[NASA-CASE-XMS-01295-1] c37 N79-21345

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Coaxial inverted geometry transistor having
buried emitter
[NASA-CASE-ARC-10330-1] c09 N73-32112

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[NASA-CASE-XMP-06409] c06 N71-23230
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weight polyaryloxysilanes Patent
[NASA-CASE-XMP-08674] c06 N71-28807

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Slug flow magnetohydrodynamic generator
[NASA-CASE-XLE-02083] c03 N69-39983

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determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527

DURAN, E. H.
Subminiature insertable force transducer
[NASA-CASE-NPO-13423-1] c33 N75-31329
Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338

DURNEY, G. F.
Space suit
[NASA-CASE-HSC-12609-1] c05 N73-32012

DUSTIN, E. O.
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[NASA-CASE-LEW-10345-1] c10 N71-25899
Shock position sensor for supersonic inlets
[NASA-CASE-LEW-11915-1] c35 N76-14431

DWINELL, W. S.
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coupled lines
[NASA-CASE-HSC-16697-1] c33 N78-22298

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Resonant waveguide stark cell
[NASA-CASE-LAR-11351-1] c33 N75-26245

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[NASA-CASE-XNP-0074] c07 N70-36911
Phase-locked loop with sideband rejecting
properties Patent
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Time synchronization system utilizing moon
reflected coded signals Patent
[NASA-CASE-NPO-10143] c10 N71-26326
Two carrier communication system with single
transmitter
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Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N79-14272

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Data multiplexer using tree switching
configuration
[NASA-CASE-NPO-11333] c08 N72-22162
Flexible computer accessed telemetry
[NASA-CASE-NPO-11358] c07 N72-25172

EATON, L. E.
Heat transfer device
[NASA-CASE-HFS-22938-1] c34 N76-18374

EBERSOLE, T. J.
Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090

INVENTOR INDEX

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Thermal radiation shielding Patent
[NASA-CASE-XLE-03432] c33 N71-24145

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[NASA-CASE-GSC-11018-1] c31 N73-30829

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Transpiration cooled turbine blade manufactured from wires Patent
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High-speed infrared furnace
[NASA-CASE-XLE-10466] c17 N69-25147

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Air speed and attitude probe
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Wire stripper
[NASA-CASE-FRC-10111-1] c37 N79-10419

ED-AASSER, M. S.
Process for preparation of large-particle size monodisperse latexes
[NASA-CASE-NFS-25000-1] c25 N79-14171

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Space craft soft landing system Patent
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[NASA-CASE-XMP-03198] c30 N70-40353

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- PLATTAU, T.
Wideband heterodyne receiver for laser
communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346
- FLEETWOOD, C. E., JR.
Method of treating the surface of a glass member
[NASA-CASE-GSC-12110-1] c27 N77-32308
- FLEISCHMAN, G. L.
Flat-plate heat pipe
[NASA-CASE-GSC-11998-1] c34 N77-32413
- FLETCHER, E. A.
Apparatus for igniting solid propellants Patent
[NASA-CASE-XLE-00207] c28 N70-33375
Method of igniting solid propellants Patent
[NASA-CASE-XLE-01988] c27 N71-15634
- FLETCHER, I. L.
Satellite interlace synchronization system
[NASA-CASE-GSC-10390-1] c07 N72-11149
- FLETCHER, J. C.
Heat flow calorimeter
[NASA-CASE-GSC-11434-1] c34 N74-27859
- FLETCHER, W. R.
Field effect transistor and method of
construction thereof
[NASA-CASE-MPS-23312-1] c33 N78-27326
- FLIPPIN, A.
Sun angle calculator
[NASA-CASE-MSC-12617-1] c35 N76-29552
- FLORES, A. L.
Field ionization electrodes Patent
[NASA-CASE-ERC-10013] c09 N71-26678
- FLOYD, E. L.
High impact pressure regulator Patent
[NASA-CASE-NPO-10175] c14 N71-18625
- FOGAL, G. L.
Automatic bio waste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804

INVENTOR INDEX

FRENCH, J. C.

Fluid mass sensor for a zero gravity environment
[NASA-CASE-MSC-14653-1] c35 N77-19385

FOHLEB, G. H.
Intumescent paints Patent
[NASA-CASE-ARC-10099-1] c18 N71-15469
Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

FOITANA, A.
Solar sensor having coarse and fine sensing with
matched preirradiated cells and method of
selecting cells Patent
[NASA-CASE-XLA-01584] c14 N71-23269

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Adaptive system and method for signal generation
Patent
[NASA-CASE-GSC-11367] c10 N71-26374

FORBES, S. G.
Apparatus for field strength measurement of a
space vehicle Patent
[NASA-CASE-XLE-00820] c14 N71-16014

FORD, A. G.
Rock drill for recovering samples
[NASA-CASE-IXP-07478] c14 N69-21923
Electrically-operated rotary shutter Patent
[NASA-CASE-IXP-00637] c14 N70-40273
Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369
A speed control device for a heavy duty shaft
[NASA-CASE-NPO-14170] c37 N78-17391

FORD, F. C.
Hypervelocity gun
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circuit Patent
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driven elements at 90 deg angle fed 180 deg
out of phase Patent
[NASA-CASE-XLA-00414] c07 N70-38200

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Solar cell mounting Patent
[NASA-CASE-IXP-00826] c03 N71-20895

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Method of making silicon solar cell array
[NASA-CASE-LEW-11069-1] c44 N74-14784
Solar cell shingle
[NASA-CASE-LEW-12587-1] c44 N77-31601
Method of making encapsulated solar cell modules
[NASA-CASE-LEW-12185-1] c44 N78-25528

FORLIPER, W. R.
Landing gear Patent
[NASA-CASE-IXP-01174] c02 N70-41589

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[NASA-CASE-IXP-00425] c11 N70-38202

FORTINI, A.
Method of electroforming a rocket chamber
[NASA-CASE-LEW-11118-1] c20 N74-32919
Rocket chamber and method of making
[NASA-CASE-LEW-11118-2] c20 N76-14191
Heat exchanger and method of making
[NASA-CASE-LEW-12441-1] c34 N79-13289
A heat exchanger and method of making
[NASA-CASE-LEW-12441-2] c34 N79-21313

FOSTER, J. V.
Mechanically limited, electrically operated
hydraulic valve system for aircraft controls
Patent
[NASA-CASE-YAC-00048] c02 N71-29128
Magnetic position detection method and apparatus
[NASA-CASE-ARC-10179-1] c21 N72-22619

FOSTER, L. E.
Magnetomotive metal working device Patent
[NASA-CASE-IXP-03793] c15 N71-24833

FOSTER, T.
Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384
Variable mixer propulsion cycle
[NASA-CASE-LEW-12917-1] c07 N78-18067

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Bit error rate measurement above and below bit
rate tracking threshold
[NASA-CASE-MSC-12743-1] c32 N79-10263

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Parasitic suppressing circuit
[NASA-CASE-ERC-10403-1] c10 N73-26228

FOX, W. E.
Event recorder Patent
[NASA-CASE-XLA-01832] c14 N71-21006

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Process for applying a protective coating for
salt bath brazing Patent
[NASA-CASE-XLE-00046] c15 N70-33311

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Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502

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fuel cell Patent
[NASA-CASE-XLE-04526] c03 N71-11052

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Laser Doppler velocity simulator
[NASA-CASE-LAR-12176-1] c36 N78-29435

FRANKLIN, W. J.
Segmented back-up bar Patent
[NASA-CASE-IXP-00640] c15 N70-39924
Portable alignment tool Patent
[NASA-CASE-IXP-01452] c15 N70-41371

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Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N79-10693

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Cryogenic cooling system Patent
[NASA-CASE-NPO-10467] c23 N71-26654

FRAZER, R. E.
Vacuum evaporator with electromagnetic ion
steering Patent
[NASA-CASE-NPO-10331] c09 N71-26701
Strong thin membrane structure
[NASA-CASE-NPO-14021-1] c27 N77-32313
Coupling apparatus for ultrasonic medical
diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751
Apparatus for endoscopic examination
[NASA-CASE-NPO-14092-1] c52 N79-19678

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Junction range finder
[NASA-CASE-KSC-10108] c14 N73-25461

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High temperature nickel-base alloy Patent
[NASA-CASE-XLE-00151] c17 N70-33283
External liquid-spray cooling of turbine blades
Patent
[NASA-CASE-XLE-00037] c28 N70-33372
Nickel-base alloy Patent
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High temperature cobalt-base alloy Patent
[NASA-CASE-XLE-00726] c17 N71-15644
High temperature cobalt-base alloy Patent
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Nickel-base alloy containing Mo-W-Al-Cr-
Ta-Zr-C-Nb-B Patent
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High temperature ferromagnetic cobalt-base alloy
Patent
[NASA-CASE-XLE-03629] c17 N71-23248
Liquid spray cooling method Patent
[NASA-CASE-XLE-00027] c33 N71-29152
Method of forming superalloys
[NASA-CASE-LEW-10805-1] c15 N73-13465
Cobalt-base alloy
[NASA-CASE-LEW-10436-1] c17 N73-32415
Method of heat treating a formed powder product
material
[NASA-CASE-LEW-10805-3] c26 N74-10521
Method of forming articles of manufacture from
superalloy powders
[NASA-CASE-LEW-10805-2] c37 N74-13179
Nickel base alloy
[NASA-CASE-LEW-12270-1] c26 N77-32280

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[NASA-CASE-IXP-01848] c15 N71-28959

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[NASA-CASE-XLA-00113] c14 N70-33386

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Thermal flux transfer system
[NASA-CASE-NPO-12070-1] c28 N73-32606

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Ozonation of cooling tower waters
[NASA-CASE-NPO-14340-1] c25 N79-10167

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Nickel base alloy
[NASA-CASE-LEW-10874-1] c17 N72-22535

FRIDRICH, C. W.

INVENTOR INDEX

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Apparatus for welding sheet material
[NASA-CASE-XNS-01330] c37 N75-27376

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Aircraft design concept
[NASA-CASE-LAR-11852-1] c05 N77-15027

FRIEDAN, H. J.
Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N79-12694

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Positive isolation disconnect
[NASA-CASE-HSC-16043-1] c37 N79-11402

FRIEDERICH, J. E.
Biomedical radiation detecting probe Patent
[NASA-CASE-XNS-01177] c05 N71-19440

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Reentry vehicle leading edge Patent
[NASA-CASE-XLA-00165] c31 N70-33242

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Apparatus for handling micron size range
particulate material
[NASA-CASE-NPO-10151] c37 N78-17386

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Device for determining relative and lar position
between a spacecraft and a radia n emitting
celestial body
[NASA-CASE-GSC-11444-1] c14 N73-28490

FRITZ, W. H.
Method of fabricating a photovoltaic of a
substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

FRITZEN, H., JR.
Noncontaminating swabs
[NASA-CASE-HFS-18100] c15 N72-11390

PROEHLING, S. C.
Casting propellant in rocket engine
[NASA-CASE-LAR-11995-1] c28 N77-10213

FROST, J. D., JR.
EEG sleep analyzer and method of operation Patent
[NASA-CASE-HSC-13282-1] c05 N71-24729

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Compressible biomedical electrode
[NASA-CASE-HSC-13648] c05 N72-27103

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Snap-in compressible biomedical electrode
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Patent
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RF controlled solid state switch
[NASA-CASE-ARC-10136-1] c09 N72-22202

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Low power electromagnetic flowmeter providing
accurate zero set
[NASA-CASE-ARC-10362-1] c14 N73-32326

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Miniature ingestible telemeter devices to
measure deep-body temperature
[NASA-CASE-ARC-10583-1] c52 N76-29894

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Induction powered biological radiosonde
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FUCHS, J. C.
Lightning current waveform measuring system
[NASA-CASE-KSC-11018-1] c33 N79-10337

FUEHR, W.
Method for applying photographic resists to
otherwise incompatible substrates
[NASA-CASE-HSC-18107-1] c35 N79-19319

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Random function tracer Patent
[NASA-CASE-XLA-01401] c15 N71-21179

FUJIOKA, E. S.
Folding structure fabricated of rigid panels
[NASA-CASE-XHQ-02146] c18 N75-27040

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Automatic control of liquid cooling garment by
cutaneous and external auditory meatus
temperatures
[NASA-CASE-HSC-13917-1] c05 N72-15098

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Low speed phaselock speed control system
[NASA-CASE-GSC-11127-1] c09 N75-24758

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Cable restraint
[NASA-CASE-LAR-10129-1] c15 N73-25512

FULLER, E. V.
Reefing system
[NASA-CASE-LAR-10129-2] c37 N74-20063

FULLER, E. V.
Binocular device for displaying numerical
information in field of view
[NASA-CASE-LAR-11782-1] c74 N77-20882

FUNK, B. E., JR.
Optical probing of supersonic flows with

statistical correlation
[NASA-CASE-HFS-20642] c14 N72-21407

FURCHNITZ, C. A.
Pulse-width modulation multiplier Patent
[NASA-CASE-XER-09213] c07 N71-12390

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Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-1] c31 N78-17237

FURMAN, E. B.
Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-2] c34 N79-20336

FURNER, R. L.
Automated analysis of oxidative metabolites
[NASA-CASE-ARC-10469-1] c25 N75-12086

FURUNOTO, H. W.
Optical pump and driver system for lasers
[NASA-CASE-ERC-10283] c16 N72-25485

FLER, H. F.
Very high intensity light source using a cathode
ray tube
[NASA-CASE-XNP-01296] c33 N75-27250

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Interferometer-polarimeter
[NASA-CASE-NPO-11239] c14 N73-12446

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Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627

FYHAT, A. L.
Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628

FYHAT, A. L.
Forward-scatter polarimeter for determining the
gaseous depolarization factor in the presence
of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434

FYHAT, A. L.
High resolution Fourier
interferometer-spectrophotopolarimeter
[NASA-CASE-NPO-13604-1] c35 N76-31490

G

GALENA, S. D.
CCD correlated quadruple sampling processor
[NASA-CASE-NPO-14426-1] c33 N79-17134

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Bismuth-lead coatings for gas bearings used in
atmospheric environments and vacuum chambers
Patent
[NASA-CASE-XGS-02011] c15 N71-20739

GADDIS, D. H.
Inorganic solid film lubricants Patent
[NASA-CASE-XNP-03988] c15 N71-21403

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A method and alloy for making electrical
connections to conductive thin film
[NASA-CASE-GSC-12404-1] c33 N79-17135

GADE, D. W.
Temperature regulation circuit Patent
[NASA-CASE-XNP-02792] c14 N71-28958

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Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-10766-1] c14 N72-21432

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Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

GAHN, E. F.
Analytical test apparatus and method for
determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527

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Gels as battery separators for soluble
electrode cells
[NASA-CASE-LEW-12364-1] c44 N77-22606

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color cathode ray tube Patent
[NASA-CASE-ERC-10098] c09 N71-28618

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Flow rate switch
[NASA-CASE-NPO-10722] c09 N72-20199

GALLAGHER, H. E.
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of ion engines to form a cluster Patent
[NASA-CASE-XNP-02923] c28 N71-23081

GALLAGHER, H. E.
High efficiency ionizer assembly Patent
[NASA-CASE-XNP-01954] c28 N71-28850

GALLO, A. J.
Rapid sync acquisition system Patent
[NASA-CASE-NPO-10214] c10 N71-26577

GANGULI, P. S.
Coal desulfurization process

INVENTOR INDEX

GELB, L. L.

[NASA-CASE-NPO-13937-1] c44 N78-31527
GARAVAGLIA, A. P.
 Shoulder harness and lap belt restraint system
 [NASA-CASE-ARC-10519-2] c05 N75-25915
GARBA, J. A.
 Pressure seal Patent
 [NASA-CASE-NPO-10796] c15 N71-27068
GARD, L. E.
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 [NASA-CASE-MPS-23620-1] c37 N79-10421
GARDNER, D. E.
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 [NASA-CASE-XLF-00023] c15 N70-33330
GARDNER, J. E.
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 transfer lines Patent
 [NASA-CASE-INP-10475] c15 N71-24679
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 [NASA-CASE-IAC-00042] c14 N70-34816
GARDOS, M. W.
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 coating for high temperature alloys
 [NASA-CASE-MFS-22324-1] c27 N75-27160
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 [NASA-CASE-ERC-10087] c14 N71-27334
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 crystalline materials
 [NASA-CASE-ERC-10275] c26 N72-25680
 Semiconductor transducer device
 [NASA-CASE-ERC-10087-2] c14 N72-31446
GARNIRE, E. H.
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 [NASA-CASE-HQN-10541-1] c07 N71-26291
 Laser machining apparatus Patent
 [NASA-CASE-HQN-10541-2] c15 N71-27135
 Optical frequency waveguide and transmission
 system Patent
 [NASA-CASE-HQN-10541-4] c16 N71-27193
 Optical frequency waveguide and transmission
 system
 [NASA-CASE-HQN-10541-3] c23 N72-23695
GARNER, B. D.
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 Dynamic precession damper for spin stabilized
 vehicles Patent
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 Attitude orientation of spin-stabilized space
 vehicles Patent
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 Fluid pressure amplifier and system
 [NASA-CASE-LAR-10868-1] c33 N74-11050
 Servo valve
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 Magnetic heading reference
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 range Patent
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 Resettable monostable pulse generator Patent
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GARRIN, J. P., JR.
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 plant modeling for high-gain control
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GARWOOD, D. C.
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GASTON, D. E.
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GASTON, E. P., JR.
 Landing gear Patent
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 [NASA-CASE-INP-07770-2] c18 N71-26772
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 containing the same
 [NASA-CASE-MFS-13532] c18 N72-17532

Method of preparing zinc orthotitanate pigment
 [NASA-CASE-MFS-23345-1] c27 N77-30237
GATES, J. D.
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GATES, L. E., JR.
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 [NASA-CASE-INP-00597] c18 N71-23088
GATEWOOD, J. E.
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 making same
 [NASA-CASE-NPO-11775] c26 N72-28761
GATLIN, J. A.
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 [NASA-CASE-XGS-05579] c31 N71-15676
 Gravity gradient attitude control system Patent
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 Sampled data controller Patent
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GATTI, A.
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 crystal whiskers
 [NASA-CASE-IHQ-03903] c15 N69-21922
GAUSE, R. L.
 Restraint system for ergometer
 [NASA-CASE-MFS-21046-1] c14 N73-27377
 Ergometer
 [NASA-CASE-MFS-21109-1] c05 N73-27941
 Tilting table for ergometer and for other
 biomedical devices
 [NASA-CASE-MFS-21010-1] c05 N73-30078
 Manual actuator
 [NASA-CASE-MFS-21481-1] c37 N74-18127
 Conductive elastomeric extensometer
 [NASA-CASE-MFS-21049-1] c52 N74-27864
 Ergometer calibrator
 [NASA-CASE-MFS-21045-1] c35 N75-15932
GAUTHIER, M.
 Method for analyzing radiation sensitivity of
 integrated circuits
 [NASA-CASE-NPO-14350-1] c33 N78-27330
GAVALAS, G. E.
 Coal desulfurization process
 [NASA-CASE-NPO-13937-1] c44 N78-31527
GAVERA, H. E.
 Failsafe multiple transformer circuit
 configuration
 [NASA-CASE-NPO-11078] c09 N72-25262
GAVERILLIS, T. G.
 Turnstile and flared cone UHF antenna
 [NASA-CASE-LAR-10970-1] c33 N76-14372
GDULA, W. G.
 Recovery of radiation damaged solar cells
 through thermal annealing
 [NASA-CASE-XGS-04047-2] c03 N72-11062
GEBBEN, V. D.
 Circuit for detecting initial systole and
 diastolic notch
 [NASA-CASE-LEW-11581-1] c54 N75-13531
GEDWILL, H. A.
 Method of protecting the surface of a substrate
 [NASA-CASE-LEW-11696-1] c37 N75-13261
 Duplex aluminized coatings
 [NASA-CASE-LEW-11696-2] c26 N75-19408
GEE, S. W.
 Terminal guidance system
 [NASA-CASE-FRC-10049-1] c04 N74-13420
GEHRING, W. E.
 Apparatus for purging systems handling toxic,
 corrosive, noxious and other fluids Patent
 [NASA-CASE-XMS-01905] c12 N71-21089
GEIDENMAN, W. A., JR.
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 recessed anode
 [NASA-CASE-ARC-10266-1] c33 N75-29318
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GEIPEL, D. E.
 Omnidirectional acceleration device Patent
 [NASA-CASE-HQN-10780] c14 N71-30265
GRISE, P. E., JR.
 FM/CW radar system
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GELB, L. L.
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 structures
 [NASA-CASE-LAR-10416-1] c24 N74-30001

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Wide angle long eye relief eyepiece Patent
[NASA-CASE-XMS-06056-1] c23 N71-24857

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[NASA-CASE-XGS-11177] c09 N71-27001

GEORGE, T. R., JR.
Device for installing rocket engines
[NASA-CASE-MPS-19220-1] c20 N76-22296

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Concentric differential gearing arrangement
[NASA-CASE-ARC-10462-1] c37 N74-27901

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[NASA-CASE-XLE-04026] c14 N71-23267

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[NASA-CASE-XLA-00183] c14 N70-40239

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Foldable conduit Patent
[NASA-CASE-XLE-00620] c32 N70-41579

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[NASA-CASE-XMS-09636] c05 N71-12344

GETTELMAH, C. C.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c33 N74-12913

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[NASA-CASE-XHQ-04106] c14 N70-40240

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Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154

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[NASA-CASE-XNP-09832] c30 N71-23723

GIBSON, P. W.
High-torque open-end wrench
[NASA-CASE-NPO-13541-1] c37 N79-14383

GIANNINI, G. E.
Combination automatic-starting electrical plasma torch and gas shutoff valve
[NASA-CASE-XLE-10717] c37 N75-29426

GIBSON, P. W.
Contour surveying system Patent
[NASA-CASE-XLA-08646] c14 N71-17586

GIBSON, P. W.
Pressure operated electrical switch responsive to a pressure decrease after a pressure increase
[NASA-CASE-LAR-10137-1] c09 N72-22204

GIPFEL, C. E.
Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
[NASA-CASE-NPO-13663-1] c35 N77-14406

GILBERT, G. J.
Apparatus for ballasting high frequency transistors
[NASA-CASE-XGS-05003] c09 N69-24318

GILBREATH, W. P.
Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339

GILCHRIST, C. E.
Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent
[NASA-CASE-XNP-05254] c07 N71-20791

GILES, R. E. F.
Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent
[NASA-CASE-XNP-02221] c18 N71-27170

GILKISON, C. A.
Linear accelerator frequency control system Patent
[NASA-CASE-XGS-05441] c10 N71-22962

GILL, W. L.
Burn rate testing apparatus
[NASA-CASE-XMS-09690] c33 N72-25913

GILLERMAN, J. E.
Water management system and an electrolytic cell therefor Patent
[NASA-CASE-HSC-10960-1] c03 N71-24718

GILLESPIE, W., JR.
Infrared scanner Patent
[NASA-CASE-XLA-00120] c21 N70-33181

GILLESPIE, W., JR.
Passive communication satellite Patent
[NASA-CASE-XLA-00210] c30 N70-40309

Alleviation of divergence during rocket launch Patent
[NASA-CASE-XLA-00256] c31 N71-15663

Method of making an inflatable panel Patent
[NASA-CASE-XLA-03497] c15 N71-23052

GILLETTE, R. B.
Plasma cleaning device
[NASA-CASE-MPS-22906-1] c75 N78-27913

GILLEY, G. C.
Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

GILLEY, P. J.
Material fatigue testing system
[NASA-CASE-MPS-20673] c14 N73-20476

GILLIGAN, J. E.
Method of preparing zinc orthotitanate pigment
[NASA-CASE-MPS-23345-1] c27 N77-30237

GILLMORE, W. F.
Method and apparatus for high resolution spectral analysis
[NASA-CASE-NPO-10748] c08 N72-20177

GILMAN, R. E.
Flanged major modular assembly jig
[NASA-CASE-HSC-19372-1] c39 N76-31562

GILMATH, M. C.
Omnidirectional microwave spacecraft antenna Patent
[NASA-CASE-XLA-03114] c09 N71-22888

GILWEE, W. J., JR.
Honeycomb-laminate composite structure
[NASA-CASE-ARC-10913-1] c24 N78-15180

GIM, W.
Apparatus and method for control of a solid fueled rocket vehicle Patent
[NASA-CASE-XNP-00217] c28 N70-38181

GIBER, J. D.
Catalyst surfaces for the chromous/chromic redox couple
[NASA-CASE-LEW-13148-1] c44 N79-14538

GIORGINI, E. A.
Self-contained breathing apparatus
[NASA-CASE-HSC-14733-1] c54 N76-24900

GIOVANNETTI, A., JR.
High-temperature, high-pressure spherical segment valve Patent
[NASA-CASE-XAC-00074] c15 N70-34817

GIRALA, A. S.
Open type urine receptacle
[NASA-CASE-HSC-12324-1] c05 N72-22093

GLASER, P. E.
Apparatus for measuring thermal conductivity Patent
[NASA-CASE-XGS-01052] c14 N71-15992

GLASSEY, E. A.
Line following servosystem Patent
[NASA-CASE-XAC-00001] c15 N71-28952

GLAWE, G. E.
Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent
[NASA-CASE-XLE-00266] c14 N70-34156

Sensing probe
[NASA-CASE-LEW-10281-1] c14 N72-17327

GLEKAS, L. P.
Compact solar still Patent
[NASA-CASE-XMS-04533] c15 N71-23086

GLENN, C. G.
Manual actuator
[NASA-CASE-MPS-21481-1] c37 N74-18127

Conductive elastomeric extensometer
[NASA-CASE-MPS-21049-1] c52 N74-27864

GLENN, D. C.
Method of lubricating rolling element bearings Patent
[NASA-CASE-XLE-09527] c15 N71-17688

Rolling element bearings Patent
[NASA-CASE-XLE-09527-2] c15 N71-26189

GLOBUS, R. E.
Process of forming particles in a cryogenic path Patent
[NASA-CASE-NPO-10250] c23 N71-16212

GLOBE, W. L.
Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773

Tracking receiver Patent
[NASA-CASE-XGS-08679] c10 N71-21473

INVENTOR INDEX

GRANT, D. J.

GLORIA, H. R.
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

GOERING, R. S.
Open tube guideway for high speed air cushioned vehicles
[NASA-CASE-LAR-10256-1] c85 N74-34672

GOETZ, A. F. H.
Multispectral imaging and analysis system
[NASA-CASE-NPO-13691-1] c43 N79-17288

GOETZ, C.
A quartz ball valve
[NASA-CASE-NPO-14473-1] c37 N79-10427

GOLD, H.
Automotive gas turbine fuel control
[NASA-CASE-LEW-12785-1] c37 N78-24545

GOLD, H. S.
Gas turbine engine fuel control
[NASA-CASE-LEW-11187-1] c28 N73-19793

GOLDBERG, G. I.
Reaction wheel scanner Patent
[NASA-CASE-IGS-02629] c14 N71-21082

GOLDBERG, J.
Automatic fault correction system for parallel signal channels Patent
[NASA-CASE-XNP-03263] c09 N71-18843

GOLDEN, D. P., JR.
Contourograph system for monitoring electrocardiograms
[NASA-CASE-MSC-13407-1] c10 N72-20225
Apparatus and method for processing Korotkov sounds
[NASA-CASE-MSC-13999-1] c52 N74-26626

GOLDMAN, G. C.
High powered arc electrodes
[NASA-CASE-LEW-11162-1] c33 N74-12913

GOLDSBERRY, R. E.
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-1] c27 N74-21156
Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

GOLDSCHIED, F. E.
Shear modulated fluid amplifier Patent
[NASA-CASE-MFS-10412] c12 N71-17578

GOLDSMITH, J. V.
Solar battery with interconnecting means for plural cells Patent
[NASA-CASE-XNP-06506] c03 N71-11050
Solid state matrices
[NASA-CASE-NPO-10591] c03 N72-22041
Solar cell panels with light transmuting plate
[NASA-CASE-NPO-10747] c03 N72-22042

GOLDSTEIN, A. W.
Supersonic fan blading
[NASA-CASE-LEW-11402-1] c07 N74-28226

GOLDSTEIN, C. S.
Dynamic capacitor having a peripherally driven element and system incorporating the same
[NASA-CASE-XNP-02899-1] c33 N79-21265

GOLDSTEIN, H. E.
Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376
Fibrous refractory composite insulation
[NASA-CASE-ARC-11169-1] c24 N78-32189
Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N78-32260

GOLDSTEIN, I.
Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028

GOLDSTEIN, R. E.
Correlation function apparatus Patent
[NASA-CASE-XNP-00746] c07 N71-21476
Method and apparatus for mapping planets
[NASA-CASE-NPO-11001] c07 N72-21118
Binary coded sequential acquisition ranging system
[NASA-CASE-NPO-11194] c08 N72-25209
Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system
[NASA-CASE-NPO-11302-1] c07 N73-13149
Method and apparatus for a single channel digital communications system
[NASA-CASE-NPO-11302-2] c32 N74-10132

Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267

GOODRICH, J. A.
Locking device for turbine rotor blades Patent
[NASA-CASE-XNP-00816] c28 N71-28928

GOODWIN, F. E.
Opto-mechanical subsystem with temperature compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366

GOODWIN, R. A.
Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent
[NASA-CASE-IGS-08269] c23 N71-26206

GOODYER, H. J.
Stagnation pressure probe
[NASA-CASE-LAR-11139-1] c35 N74-32878

GOOKIN, R. E.
System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296

GORDON, B. L.
Television noise reduction device
[NASA-CASE-MSC-12607-1] c32 N75-21485

GORDON, W. A.
Arc electrode of graphite with ball tip Patent
[NASA-CASE-XLE-04788] c09 N71-22987

GORELICK, D.
Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566

GORSTEIN, H.
Two color horizon sensor
[NASA-CASE-ERC-10174] c14 N72-25409

GOSS, W. C.
High pulse rate high resolution optical radar system
[NASA-CASE-NPO-11426] c07 N73-26119

GOODY, J. E.
Capacitor power pak Patent Application
[NASA-CASE-LAR-10367-1] c03 N70-26817

GOULD, C. W.
Printed circuit board with bellows rivet connection Patent
[NASA-CASE-XNP-05082] c15 N70-41960

GOULD, J. H.
Static inverters which sum a plurality of waves Patent
[NASA-CASE-XNP-00663] c08 N71-18752
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437

GOULD, W. L., JR.
Millimeter wave antenna system Patent Application
[NASA-CASE-GSC-10949-1] c07 N71-28965

GRAAB, J. V.
Analytical test apparatus and method for determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527

GRABOWSKI, J. P.
Target acquisition antenna
[NASA-CASE-GSC-10064-1] c10 N72-22235

GRAFF, J.
Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844

GRAPSTEIN, D.
Fluidic-thermochromic display device Patent
[NASA-CASE-ERC-10031] c12 N71-18603

GRAHAM, O. L.
Color television system
[NASA-CASE-MSC-12146-1] c07 N72-17109

GRAHAM, R. W.
Liquid storage tank venting device for zero gravity environment Patent
[NASA-CASE-XLE-01449] c15 N70-41646

GRAN, A. A.
Venting device for pressurized space suit helmet Patent
[NASA-CASE-XNS-09652-1] c05 N71-26333

GRANA, D. C.
Kine-Pak: A self-contained, electrical power generator system
[NASA-CASE-LAR-11551-1] c44 N78-22468
Remote water monitoring system
[NASA-CASE-LAR-11973-1] c35 N78-27384

GRANATA, R. L.
Sidereal frequency generator Patent
[NASA-CASE-XGS-02610] c14 N71-23174

GRANT, D. J.
Passively regulated water electrolysis rocket engine Patent

[NASA-CASE-XGS-08729] c28 N71-14044
Precision thrust gage Patent
[NASA-CASE-XGS-02319] c14 N71-22965
Fluid flow meter with comparator reference means
Patent
[NASA-CASE-XGS-01331] c14 N71-22996

GRANT, G. R.
Dual wavelength scanning Doppler velocimeter
[NASA-CASE-ARC-10637-1] c35 N75-16783

GRANT, E. H.
Spacecraft attitude sensor
[NASA-CASE-GSC-10890-1] c21 N73-30640

GRANTHAN, W. L.
Means for measuring the electron density
gradients of the plasma sheath formed around a
space vehicle Patent
[NASA-CASE-XLA-06232] c25 N71-20563
Antenna design for surface wave suppression Patent
[NASA-CASE-XLA-10772] c07 N71-28980

GRAY, C. E.
Optical characteristics measuring apparatus Patent
[NASA-CASE-XNF-08840] c23 N71-16365

GRAY, D. L.
Solar cell angular position transducer
[NASA-CASE-LAR-11999-1] c35 N78-18394

GRAY, D. T.
Three-axis adjustable loading structure
[NASA-CASE-FRC-10051-1] c35 N74-13129

GRAY, J. L.
Automatic lightning detection and photographic
system
[NASA-CASE-KSC-10728-1] c14 N73-32319

GRAY, B. C.
Penetrator nozzle
[NASA-CASE-KSC-11064-1] c34 N78-22328

GRAY, V. H.
Boiler for generating high quality vapor Patent
[NASA-CASE-XLE-00785] c33 N71-16104
Ablative system
[NASA-CASE-LEW-10359] c33 N72-25911
Ablative system
[NASA-CASE-LEW-10359-2] c33 N73-25952
Space vehicle with artificial gravity and
earth-like environment
[NASA-CASE-LEW-11101-1] c31 N73-32750

GRAYSON, J. H.
Voltage-current characteristic simulator Patent
[NASA-CASE-XMS-01554] c10 N71-10578

GREEN, V. J.
Inductive liquid level detection system Patent
[NASA-CASE-XLE-01609] c14 N71-10500

GREEN, F. J.
Variable ratio mixed-mode bilateral master-slave
control system for shuttle remote manipulator
system
[NASA-CASE-MSC-14245-1] c18 N75-27041

GREEN, A. T.
Method and apparatus for nondestructive testing
of pressure vessels
[NASA-CASE-NPO-12142-1] c38 N76-28563

GREEN, C. W., JR.
Rocket injector head
[NASA-CASE-XHF-04592-1] c20 N79-21125

GREEN, E. D.
Linear sawtooth voltage-wave generator employing
transistor timing circuit having
capacitor-zener diode combination feedback
Patent
[NASA-CASE-XMS-01315] c09 N70-41675

GREEN, K. A.
Highly efficient antenna system using a
corrugated horn and scanning hyperbolic
reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365
Multifrequency broadband horn antenna
[NASA-CASE-NPO-14588-1] c32 N79-17067

GREEN, E. G.
Traversing probe Patent
[NASA-CASE-XFR-02007] c12 N71-24692
Layout tool Patent
[NASA-CASE-FRC-10005] c15 N71-26145
Method and apparatus for attaching physiological
monitoring electrodes Patent
[NASA-CASE-XPR-07658-1] c05 N71-26293

GREEN, R. R.
Serial digital decoder Patent
[NASA-CASE-NPO-10150] c08 N71-24650
Apparatus for deriving synchronizing pulses from
pulses in a single channel PCM communications
system
[NASA-CASE-NPO-11302-1] c07 N73-13149
Method and apparatus for a single channel
digital communications system
[NASA-CASE-NPO-11302-2] c32 N74-10132

GREEN, W. L.
Mass measuring system Patent
[NASA-CASE-XMS-03371] c05 N70-42000

GREENBERG, J.
Combined electrolysis device and fuel cell and
method of operation Patent
[NASA-CASE-XLE-01645] c03 N71-20904
Heat activated cell with alkali anode and alkali
salt electrolyte Patent
[NASA-CASE-LEW-11358] c03 N71-26084
Heat activated cell Patent
[NASA-CASE-LEW-11359] c03 N71-28579
Method of making emf cell
[NASA-CASE-LEW-11359-2] c03 N72-20034

GREENLEAF, J. E.
Thermistor holder for skin temperature
measurements
[NASA-CASE-ARC-10855-1] c52 N77-10780
Sweat collection capsule
[NASA-CASE-ARC-11031-1] c54 N78-22720

GREENWOOD, T. L.
Seismic displacement transducer Patent
[NASA-CASE-XNF-00479] c14 N70-34794
Condition and condition duration indicator Patent
[NASA-CASE-XMF-01097] c10 N71-16058

GREGORY, J. W.
Rocket motor system Patent
[NASA-CASE-XLE-00323] c28 N70-38505
Combustion chamber Patent
[NASA-CASE-XLE-04857] c28 N71-23968
Rocket thrust throttling system
[NASA-CASE-LEW-10374-1] c28 N73-13773

GREGORY, T. J.
Rotating launch device for a remotely piloted
aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076

GRIEVE, S. H.
Apparatus for testing wiring harness by
vibration generating means
[NASA-CASE-MSC-15158-1] c14 N72-17325

GRIFFIN, C. R.
Antenna deployment mechanism
[NASA-CASE-GSC-12331-1] c37 N78-32436

GRIFFIN, P. D.
Device for determining the accuracy of the flare
on a flared tube
[NASA-CASE-XKS-03495] c14 N69-39785
Optical monitor panel Patent
[NASA-CASE-XKS-03509] c14 N71-23175

GRIFFIN, R. H.
Apparatus for conducting flow electrophoresis in
the substantial absence of gravity
[NASA-CASE-MFS-21394-1] c34 N74-27744

GRIFFIN, W. S.
Fluid jet amplifier
[NASA-CASE-XLE-03512] c12 N69-21466
Fluid jet amplifier Patent
[NASA-CASE-XLE-09341] c12 N71-28741

GRIFFITH, G. E.
High intensity heat and light unit Patent
[NASA-CASE-XLA-00141] c09 N70-33312

GRINER, D. B.
System for the measurement of ultra-low stray
light levels
[NASA-CASE-MFS-23513-1] c74 N79-11865

GRISAPPE, S. J.
Method of making a diffusion bonded refractory
coating Patent
[NASA-CASE-XLE-01604-2] c15 N71-15610
Nickel aluminide coated low alloy stainless steel
[NASA-CASE-LEW-11267-1] c17 N73-32414
Method of protecting the surface of a substrate
[NASA-CASE-LEW-11696-1] c37 N75-13261
Duplex aluminized coatings
[NASA-CASE-LEW-11696-2] c26 N75-19408
Fused silicide coatings containing discrete
particles for protecting niobium alloys
[NASA-CASE-LEW-11179-1] c27 N76-16229

GRISWOLD, R. H., JR.
Dual output variable pitch turbofan actuation
system
[NASA-CASE-LEW-12419-1] c07 N77-14025

GROBMAN, J.
Electric propulsion engine test chamber Patent

- [NASA-CASE-XLE-00252] c11 N70-34844
GROON, N. J.
 Electromagnetic mirror drive system
 [NASA-CASE-XLA-03724] c14 N69-27461
 Variable pulse width multiplier Patent
 [NASA-CASE-XLA-02850] c09 N71-20447
 Annular momentum control device used for
 stabilization of space vehicles and the like
 [NASA-CASE-LAR-11051-1] c15 N76-14158
 Magnetic suspension and pointing system
 [NASA-CASE-LAR-11889-1] c19 N76-18227
 Magnetic suspension and pointing system
 [NASA-CASE-LAR-11889-2] c37 N78-27424
GROSE, W. L.
 Combustion detector
 [NASA-CASE-LAR-10739-1] c14 N73-16484
GROSS, C.
 Method of temperature compensating semiconductor
 strain gages Patent
 [NASA-CASE-XLA-04555-1] c14 N71-25892
 Infrared detectors
 [NASA-CASE-LAR-10728-1] c14 N73-12445
 Electronically scanned pressure sensor module
 with in SITU calibration capability
 [NASA-CASE-LAR-12230-1] c35 N79-14347
GROSS, W. J.
 Method of fabricating an object with a thin wall
 having a precisely shaped slit
 [NASA-CASE-LAR-10409-1] c31 N74-21059
GROTE, W. G.
 Optical inspection apparatus Patent
 [NASA-CASE-XMF-00462] c14 N70-34298
GROVE, C. H.
 Lightning current waveform measuring system
 [NASA-CASE-RSC-11018-1] c33 N79-10337
GROVES, W. O.
 Method for the preparation of inorganic single
 crystal and polycrystalline electronic materials
 [NASA-CASE-XLE-02545-1] c76 N79-21910
GRUBBS, T. H.
 Discrete local altitude sensing device Patent
 [NASA-CASE-XMS-03792] c14 N70-41812
 Line cutter Patent
 [NASA-CASE-XMS-04072] c15 N70-42017
 Tension measurement device Patent
 [NASA-CASE-XMS-04545] c15 N71-22878
 Winch having cable position and load indicators
 Patent
 [NASA-CASE-MSC-12052-1] c15 N71-24599
GRUBER, C. L.
 Method and apparatus for optical modulating a
 light signal Patent
 [NASA-CASE-GSC-10216-1] c23 N71-26722
GRUBER, R. P.
 Self-reconfiguring solar cell system
 [NASA-CASE-LEW-12586-1] c44 N78-27520
 Closed Loop solar array-ion thruster system with
 power control circuitry
 [NASA-CASE-LEW-12780-1] c20 N79-20179
GRUNBAUM, B. W.
 Automatic multiple-sample applicator and
 electrophoresis apparatus
 [NASA-CASE-ARC-10991-1] c25 N78-14104
 Microelectrophoretic apparatus and process
 [NASA-CASE-ARC-11121-1] c25 N79-14169
GRUNTHAMER, F. J.
 Photoelectron spectrometer with means for
 stabilizing sample surface potential
 [NASA-CASE-NPO-13772-1] c35 N78-10429
 Soft X-ray laser using crystal channels as
 distributed feedback cavities
 [NASA-CASE-NPO-13532-2] c36 N78-25409
GUILLLOTTE, R. J.
 Infrared scanner Patent
 [NASA-CASE-XLA-00120] c21 N70-33181
GUISINGER, J. E.
 Starting circuit for vapor lamps and the like
 Patent
 [NASA-CASE-XNP-01058] c09 N71-12540
 Variable frequency nuclear magnetic resonance
 spectrometer Patent
 [NASA-CASE-XNP-09830] c14 N71-26266
 High voltage transistor amplifier with constant
 current load
 [NASA-CASE-NPO-11023] c09 N72-17155
 Thermomagnetic recording and magneto-optic
 playback system having constant intensity
 laser beam control
 [NASA-CASE-NPO-11317-2] c36 N74-13205
 Magneto-optic detection system with noise
 cancellation
 [NASA-CASE-NPO-11954-1] c35 N78-29421
 Thermomagnetic recording and magneto-optic
 playback system
 [NASA-CASE-NPO-10972-1] c35 N79-16246
 Manganese bismuth films with narrow transfer
 characteristics for Curie-point switching
 [NASA-CASE-NPO-11336-1] c76 N79-16678
GUIST, L. R.
 Solid medium thermal engine
 [NASA-CASE-ARC-10461-1] c44 N74-33379
GUNGLE, R. L.
 Self-sealing, unbonded, rocket motor nozzle
 closure Patent
 [NASA-CASE-XLA-02651] c28 N70-41967
GUNTER, W. D., JR.
 Multiple pass reimaging optical system
 [NASA-CASE-ARC-10194-1] c23 N73-20741
 Dual wavelength scanning Doppler velocimeter
 [NASA-CASE-ARC-10637-1] c35 N75-16783
 Schlieren system employing antiparallel
 reflector in the forward direction
 [NASA-CASE-ARC-10971-1] c09 N76-26224
 Pseudo-backscatter laser Doppler velocimeter
 employing antiparallel-reflector in the
 forward direction
 [NASA-CASE-ARC-10970-1] c36 N77-25501
GUPTA, A.
 Double-beam optical method and apparatus for
 measuring thermal diffusivity and other
 molecular dynamic processes in utilizing the
 transient thermal lens effect
 [NASA-CASE-NPO-14657-1] c74 N79-17683
GUPTLER, C. A.
 Ablation sensor
 [NASA-CASE-XLA-01781] c14 N69-39975
 Pressurized cell micrometeoroid detector Patent
 [NASA-CASE-XLA-00936] c14 N71-14996
 Dual measurement ablation sensor
 [NASA-CASE-LAR-10105-1] c34 N74-15652
GUSSON, S. S.
 Pseudo-noise test set for communication system
 evaluation
 [NASA-CASE-MFS-22671-1] c35 N75-21582
 Method of and means for testing a tape
 record/playback system
 [NASA-CASE-MFS-22671-2] c35 N77-17426
GUSTAFSON, G. L.
 Apparatus for measuring thermal conductivity
 Patent
 [NASA-CASE-XGS-01052] c14 N71-15992
GUTSHALL, R. L.
 Star scanner
 [NASA-CASE-GSC-11569-1] c89 N74-30886
GUY, J. T., SR.
 Disk pack cleaning table Patent Application
 [NASA-CASE-LAR-10590-1] c15 N70-26819
GYORGAK, C. A.
 Process for applying a protective coating for
 salt bath brazing Patent
 [NASA-CASE-XLE-00046] c15 N70-33311
 Protective device for machine and metalworking
 tools Patent
 [NASA-CASE-XLE-01092] c15 N71-22797
 Extrusion die for refractory metals Patent
 [NASA-CASE-XLE-06773] c15 N71-23817
- ## H
- HABBAL, B. A.**
 Analog signal integration and reconstruction
 system Patent
 [NASA-CASE-NPO-10344] c10 N71-26544
 System for quantizing graphic displays
 [NASA-CASE-NPO-10745] c08 N72-22164
HABRA, J. B.
 Multiple varactor frequency doubler Patent
 [NASA-CASE-XNP-04958-1] c10 N71-26414
HADKE, V.
 Apparatus and method for measuring the Seebeck
 coefficient and resistivity of materials
 [NASA-CASE-NPO-11749] c14 N73-28486
 Durable antistatic coating for
 polymethylmethacrylate
 [NASA-CASE-NPO-13867-1] c27 N78-14164
HADLAND, W. O.
 Control device Patent
 [NASA-CASE-XAC-10019] c15 N71-23809

Two degree inverted flexure
[NASA-CASE-ARC-10345-1] c15 N73-12488

HADLEY, H. C., JR.
High field Cds detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088

HADY, W. F.
High speed, self-acting shaft seal
[NASA-CASE-LRW-11274-1] c37 N75-21631

HAENHNER, C. L.
Peen plating
[NASA-CASE-GSC-11163-1] c15 N73-32360
Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489

HAUSSERMAN, W.
Velocity measurement system
[NASA-CASE-MPS-23363-1] c35 N78-32396

HAFLE, R. S.
Digital plus analog output encoder
[NASA-CASE-GSC-12115-1] c62 N76-31946

HAGIHARA, P. S.
Frequency to analog converter Patent
[NASA-CASE-INP-07040] c08 N71-12500

HAGOOD, G. J., JR.
Function generator for synthesizing complex vibration mode patterns
[NASA-CASE-LAR-10310-1] c10 N73-20253

HAHNES, R. F.
Visual examination apparatus
[NASA-CASE-ARC-10329-1] c05 N73-26072
Visual examination apparatus
[NASA-CASE-RE-ARC-10329-2] c52 N76-30793
Optical instrument employing reticle having preselected visual response pattern formed thereon
[NASA-CASE-ARC-10976-1] c74 N77-22950

HALEY, C. T.
Clock setter
[NASA-CASE-LAR-11458-1] c35 N76-16392

HALEY, P. C.
Cavity radiometer Patent
[NASA-CASE-XNP-08961] c14 N71-24809
Plural output optometric sample cell and analysis system
[NASA-CASE-NPO-10233-1] c74 N78-33913

HALL, D. F.
Apparatus for measuring electric field strength on the surface of a model vehicle Patent
[NASA-CASE-XLE-02038] c09 N71-16086

HALL, E. D.
Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent
[NASA-CASE-XGS-08269] c23 N71-26206

HALL, E. H.
Method for determining presence of OH in magnesium oxide
[NASA-CASE-NPO-10774] c06 N72-17095

HALL, J. B., JR.
Surface roughness detector Patent
[NASA-CASE-XLA-00203] c14 N70-34161
Liquid waste feed system
[NASA-CASE-LAR-10365-1] c05 N72-27102
Automatic liquid inventory collecting and dispensing unit
[NASA-CASE-LAR-11071-1] c35 N75-19611

HALL, J. F., JR.
Illumination system including a virtual light source Patent
[NASA-CASE-HQN-10781] c23 N71-30292

HALL, J. H.
High powered arc electrodes
[NASA-CASE-LRW-11162-1] c33 N74-12913

HALLAR, K. L.
Image tube
[NASA-CASE-GSC-11602-1] c33 N74-21850

HALLBERG, P. C.
Turn on transient limiter Patent
[NASA-CASE-GSC-10413] c10 N71-26531
Method and apparatus for slicing crystals
[NASA-CASE-GSC-12291-1] c31 N78-24386

HALLLOCK, J. H.
Multiple hologram recording and readout system Patent
[NASA-CASE-ERC-10151] c16 N71-29131

HALPERN, W.
Adjustable chamfering tool
[NASA-CASE-NPO-10857-1] c37 N77-22478

HALPERT, G.
Frangible electrochemical cell
[NASA-CASE-XGS-10010] c03 N72-15986

HANERESH, C. L.
Ambient cure polyimide foams
[NASA-CASE-ARC-11170-1] c27 N79-11215

HASLET, J. F.
Automatic quadrature control and measuring system
[NASA-CASE-MPS-21560-1] c35 N74-21017
LC-oscillator with automatic stabilized amplitude via bias current control
[NASA-CASE-MPS-21698-1] c33 N74-26732

HANNAACK, J. B.
Space capsule Patent
[NASA-CASE-XLA-00149] c31 N70-37938
Space capsule Patent
[NASA-CASE-XLA-01332] c31 N71-15664

HAMMOND, A. D.
Variable sweep aircraft Patent
[NASA-CASE-XLA-03659] c02 N71-11041

HANCHEY, K. K.
Device for preventing high voltage arcing in electron beam welding Patent
[NASA-CASE-INP-08522] c15 N71-19486

HAND, P. J.
Temperature compensated digital inertial sensor
[NASA-CASE-NPO-13044-1] c35 N74-15094

HANGER, R. T.
Method and apparatus for fabricating improved solar cell modules
[NASA-CASE-NPO-14416-1] c44 N79-18446

HANKINSON, T. W. E.
Fatigue-resistant shear pin
[NASA-CASE-XLA-09122] c15 N69-27505

HANNA, M. F.
Dual polarity full wave dc motor drive Patent
[NASA-CASE-XNP-07477] c09 N71-26092
Event sequence detector
[NASA-CASE-NPO-11703-1] c10 N73-32144
High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814

HANSEN, D. O.
Particle parameter analyzing system
[NASA-CASE-XLE-06094] c33 N78-17293

HANSEN, G. R., JR.
Automatic vehicle location system
[NASA-CASE-NPO-11850-1] c32 N74-12912
Vehicle locating system utilizing AM broadcasting station carriers
[NASA-CASE-NPO-13217-1] c32 N75-26194

HANSEN, I. G.
Flow angle sensor and read out system Patent
[NASA-CASE-XLE-04503] c14 N71-24864
Low level signal limiter
[NASA-CASE-XLE-04791] c32 N74-22096

HANSEN, S.
Thrust dynamometer Patent
[NASA-CASE-XLE-00702] c14 N70-40203
Method of making screen by casting Patent
[NASA-CASE-XLE-00953] c15 N71-15966
Fluid flow control valve Patent
[NASA-CASE-XLE-00703] c15 N71-15967
Thrust dynamometer Patent
[NASA-CASE-XLE-05260] c14 N71-20429

HANSON, H. P.
Turbo-machine blade vibration damper Patent
[NASA-CASE-XLE-00155] c28 N71-29154

HANSON, P. W.
Lift balancing device
[NASA-CASE-LAR-10348-1] c11 N73-12264

HANSON, E. H.
Tensile strength testing device Patent
[NASA-CASE-XNP-05634] c15 N71-24834
Hydroforming techniques using epoxy molds Patent
[NASA-CASE-XLE-05641-1] c15 N71-26346

HANST, P. L.
Repetitively pulsed, wavelength selective laser Patent
[NASA-CASE-ERC-10178] c16 N71-24832

HAO, K. E.
A method for the deposition of beta-silicon carbide by isoeptitaxy
[NASA-CASE-ERC-10120] c26 N69-33482

HARADA, Y.
Method of preparing zinc orthotitanate pigment
[NASA-CASE-MPS-23345-1] c27 N77-30237

HARALSON, B. S.
Ultrasonic scanning system for in-place inspection of brazed tube joints
[NASA-CASE-MPS-20767-1] c38 N74-15130

INVENTOR INDEX

HAYNES, D. P.

HARAWAY, W. E., JR.
Thermal protection ablation spray system Patent
[NASA-CASE-XLA-04251] c18 N71-26100
Bonding method in the manufacture of continuous
regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260
Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

HARD, T. H.
Optical systems having spatially invariant outputs
[NASA-CASE-ERC-10248] c14 N72-17323

HARDGROVE, W. F.
Omni-directional anisotropic molecular trap Patent
[NASA-CASE-XGS-00783] c30 N71-17788

HARDY, J. C.
Omnidirectional joint Patent
[NASA-CASE-XMS-09635] c05 N71-24623
Restraining mechanism
[NASA-CASE-XSC-13054] c54 N78-17677

HARMAN, J. H., III
Pulse activated polarographic hydrogen detector
Patent
[NASA-CASE-XMF-06531] c14 N71-17575

HARNS, V. W.
Apparatus for automatically stabilizing the
attitude of a nonguided vehicle
[NASA-CASE-ARC-10134] c30 N72-17873

HARBOLES, G. G.
Method and means for providing an absolute power
measurement capability Patent
[NASA-CASE-ERC-11020] c14 N71-26774
Clear air turbulence detector
[NASA-CASE-ERC-10081] c14 N72-28437
Method and apparatus for measuring solar
activity and atmospheric radiation effects
[NASA-CASE-ERC-10276] c14 N73-26432

HARPER, C. A.
Thermal conductive connection and method of
making same Patent
[NASA-CASE-XMS-02087] c09 N70-41717

HARPER, P. H., SR.
Improved tire/wheel concept
[NASA-CASE-LAR-11695-1] c37 N78-22374

HARRAP, V.
Integrated circuit including field effect
transistor and cermet resistor
[NASA-CASE-GSC-10835-1] c09 N72-33205

HARRIGILL, W. T., JR.
Regulated high efficiency, lightweight
capacitor-diode multiplier dc to dc converter
[NASA-CASE-LEW-12791-1] c33 N78-32341

HARRIS, D. E.
Recorder using selective noise filter
[NASA-CASE-ERC-10112] c07 N72-21119

HARRIS, R. F.
Method for fabricating a mass spectrometer inlet
leak
[NASA-CASE-GSC-12077-1] c35 N77-24455

HARRIS, R. V., JR.
Supersonic aircraft Patent
[NASA-CASE-XLA-04451] c02 N71-12243

HARRISON, D. H.
Transducer circuit and catheter transducer Patent
[NASA-CASE-ARC-10132-1] c09 N71-24597
Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520
Diode-quad bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041

HARRISON, E. S.
Polymeric foams from cross-linkable
poly-n-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N78-31232

HARRISON, F. L.
Life raft stabilizer
[NASA-CASE-HSC-12393-1] c02 N73-26006

HARRISON, R. G., JR.
Pressure variable capacitor
[NASA-CASE-XNP-09752] c14 N69-21541
Temperature telemetric transmitter Patent
[NASA-CASE-NPO-10649] c07 N71-24840

HARSTAD, K. G.
Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

HARTENSTEIN, R. G.
Accelerometer with FM output Patent
[NASA-CASE-XLA-00492] c14 N70-34799
Variable time constant smoothing circuit Patent
[NASA-CASE-XGS-01983] c10 N70-41964

HARTING, D. R.
Strain gage Patent Application
[NASA-CASE-PRC-10053] c14 N70-35587

HARTOP, R. W.
Reflex feed system for dual frequency antenna
with frequency cutoff means
[NASA-CASE-NPO-14022-1] c32 N78-31321

HARVEY, G. A.
Maksutov Spectrograph Patent
[NASA-CASE-XLA-10402] c14 N71-29041
Apparatus for photographing meteors
[NASA-CASE-LAR-10226-1] c14 N73-19419

HARVEY, W. D.
Heat sensing instrument Patent
[NASA-CASE-XLA-01551] c14 N71-22989

HARWELL, R. J.
Nonflammable coating compositions
[NASA-CASE-NPS-20486-2] c27 N74-17283

HASBACH, W. A.
Solid state matrices
[NASA-CASE-NPO-10591] c03 N72-22041

HASKELL, R. E.
Optical process for producing classification
maps from multispectral data
[NASA-CASE-HSC-14472-1] c43 N77-10584
Interactive color display for multispectral
imagery using correlation clustering
[NASA-CASE-HSC-16253-1] c32 N79-20297

HASSON, D. F.
Space and atmospheric reentry vehicle Patent
[NASA-CASE-XGS-00260] c31 N70-37924

HATAKEYAMA, L. F.
Method and system for ejecting fairing sections
from a rocket vehicle
[NASA-CASE-GSC-10590-1] c31 N73-14853

HATCH, J. E.
Energy conversion apparatus Patent
[NASA-CASE-XLE-00212] c03 N70-34134

HATCHER, W. H.
Electromagnetic mirror drive system
[NASA-CASE-XLA-03724] c14 N69-27861
Infrared scanner Patent
[NASA-CASE-XLA-00120] c21 N70-33181
Automatic balancing device Patent
[NASA-CASE-LAR-10774] c10 N71-13545
Attitude sensor for space vehicles Patent
[NASA-CASE-XLA-00793] c21 N71-22880

HATFIELD, J. J.
Integrated time shared instrumentation display
Patent
[NASA-CASE-XLA-01952] c08 N71-12507

HATHAWAY, H. E.
Frangible tube energy dissipation Patent
[NASA-CASE-XLA-00754] c15 N70-34850

HAUGE, G.
Low distortion automatic phase control circuit
[NASA-CASE-NPS-21671-1] c33 N74-22885

HAURY, V. E.
Hydrazinium nitroformate propellant stabilized
with nitroguanidine
[NASA-CASE-NPO-12000] c27 N72-25699
Hydrazinium nitroformate propellant with
saturated polymeric hydrocarbon binder
[NASA-CASE-NPO-12015] c27 N73-16764

HAUSER, J. A.
High pressure gas filter system Patent
[NASA-CASE-NPS-12806] c14 N71-17588
High pressure helium purifier Patent
[NASA-CASE-XNP-06888] c15 N71-24044

HAVENS, D. E.
Meter for use in detecting tension in straps
having predetermined elastic characteristics
[NASA-CASE-NPS-22189-1] c35 N75-19615

HAWKINS, C. A.
System for the measurement of ultra-low stray
light levels
[NASA-CASE-NPS-23513-1] c74 N79-11865

HAWLEY, J. J.
Method of erasing target material of a vidicon
tube or the like Patent
[NASA-CASE-XNP-06028] c09 N71-23189

HAWLEY, W. W.
Omnidirectional acceleration device Patent
[NASA-CASE-HQN-10780] c14 N71-30265

HAYDEN, R. R.
Magnetic counter Patent
[NASA-CASE-XNP-08836] c09 N71-12515

HAYNES, D. P.
Remote water monitoring system

[NASA-CASE-LAR-11973-1]	c35 N78-27384	[NASA-CASE-XLA-01091]	c15 N71-10672
HAYNES, J. L.		Evacuated displacement compression molding	
Ultrasonic scanning system for in-place inspection of brazed tube joints		[NASA-CASE-LAR-10782-1]	c31 N74-14133
[NASA-CASE-NFS-20767-1]	c38 N74-15130	Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article	
HAYNIE, C. C.		[NASA-CASE-LAR-10489-1]	c31 N74-18124
Variable contour securing system		Method of laminating structural members	
[NASA-CASE-MSC-16270-1]	c37 N78-27423	[NASA-CASE-XLA-11028-1]	c24 N74-27035
HAYNIG, C. C.		Molding apparatus	
Apparatus for positioning modular components on a vertical or overhead surface		[NASA-CASE-LAR-10489-2]	c31 N74-32920
[NASA-CASE-LAR-11465-1]	c37 N76-21554	Evacuated, displacement compression mold	
HAYNOS, J. G.		[NASA-CASE-LAR-10782-2]	c31 N75-13111
Interconnection of solar cells Patent		Molded composite pyrogen igniter for rocket motors	
[NASA-CASE-XGS-01475]	c03 N71-11058	[NASA-CASE-LAR-12018-1]	c20 N78-24275
Frangible electrochemical cell		HEINBUCH, A. H.	
[NASA-CASE-XGS-10010]	c03 N72-15986	Chromato-fluorographic drug detector	
HAYS, L. G.		[NASA-CASE-ARC-10633-1]	c25 N74-26947
Fluid phase analyzer Patent		HEINERL, G. J.	
[NASA-CASE-NPO-10691]	c14 N71-26199	Extensometer frame	
Two phase flow system with discrete impinging two-phase jets		[NASA-CASE-XLA-10322]	c15 N72-17452
[NASA-CASE-NPO-11556]	c12 N72-25292	HEIN, L. A.	
Observation window for a gas confining chamber		Mechanical thermal motor	
[NASA-CASE-NPO-10890]	c11 N73-12265	[NASA-CASE-NFS-23062-1]	c37 N77-12402
Flow control valve		Spherical bearing	
[NASA-CASE-NPO-11951-1]	c37 N74-21065	[NASA-CASE-NFS-23447-1]	c37 N79-11404
HEARN, C. P.		HEINDL, J. C.	
Wideband VCO with high phase stability Patent		Fluid lubricant system Patent	
[NASA-CASE-XLA-03893]	c10 N71-27271	[NASA-CASE-XNP-03972]	c15 N71-23048
Multichannel logarithmic RF level detector		HEINEMANN, K.	
[NASA-CASE-LAR-11021-1]	c32 N76-14321	Method of forming aperture plate for electron microscope	
Phase modulating with odd and even finite power series of a modulating signal		[NASA-CASE-ARC-10448-2]	c74 N75-12732
[NASA-CASE-LAR-11607-1]	c32 N77-14292	Electron microscope aperture system	
HEBERLIG, J. C.		[NASA-CASE-ARC-10448-3]	c35 N77-14408
Survival couch Patent		HEINZ, O. K.	
[NASA-CASE-XLA-00118]	c05 N70-33285	Self-obturator, gas operated launcher	
HECHT, R.		[NASA-CASE-NPO-11013]	c11 N72-22247
Apparatus for absolute pressure measurement		HEISMAN, B. H.	
[NASA-CASE-LAR-10000]	c14 N73-30394	Tube dipling tool Patent	
HECKELMAN, J. D.		[NASA-CASE-XMS-06876]	c15 N71-21536
Multialarm summary alarm Patent		HELBERT, W. B., JR.	
[NASA-CASE-XLE-03061-1]	c10 N71-24798	Method of repairing discontinuity in fiberglass structures	
HECKLER, C. B.		[NASA-CASE-LAR-10416-1]	c24 N74-30001
Mercury capillary interrupter Patent		HELLBAUM, R. F.	
[NASA-CASE-XNP-02251]	c12 N71-20896	Logic AND gate for fluid circuits Patent	
Method for making conductors for ferrite memory arrays		[NASA-CASE-XLA-07391]	c12 N71-17579
[NASA-CASE-LAR-10994-1]	c24 N75-13032	Technique of duplicating fragile core	
HEDLUND, R. C.		[NASA-CASE-XLA-07829]	c15 N72-16329
Precision rectifier with PET switching means Patent		Fluid pressure amplifier and system	
[NASA-CASE-ARC-10101-1]	c09 N71-33109	[NASA-CASE-LAR-10868-1]	c33 N74-11050
Self-tuning bandpass filter		HELLER, J. A.	
[NASA-CASE-ARC-10264-1]	c09 N73-20231	Apparatus and method for reducing thermal stress in a turbine rotor	
HEER, E.		[NASA-CASE-LEW-12232-1]	c07 N79-10057
Pressure seal Patent		HELLMANN, R. F.	
[NASA-CASE-NPO-10796]	c15 N71-27068	Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent	
HEFFERNAN, J. T.		[NASA-CASE-XMS-01905]	c12 N71-21089
Surface finishing		HELMS, C. B.	
[NASA-CASE-MSC-12631-1]	c24 N77-28225	Prosthetic urinary sphincter	
Surface finishing		[NASA-CASE-NFS-23717-1]	c52 N79-14756
[NASA-CASE-MSC-12631-3]	c26 N79-21183	HENDEL, P. J.	
HEFLINGER, L. O.		Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil	
Spatial filter for Q-switched lasers		[NASA-CASE-NPO-8835]	c27 N78-33228
[NASA-CASE-LEW-12164-1]	c36 N77-32478	HENDERSON, M. E.	
Microbalance		Gas chromatograph injection system	
[NASA-CASE-MSC-11242]	c35 N78-17358	[NASA-CASE-ARC-10344-1]	c14 N72-21433
HEIBLEY, D. W.		Gas chromatograph injection system	
Cross-linked polyvinyl alcohol and method of making same		[NASA-CASE-ARC-10344-2]	c35 N75-26334
[NASA-CASE-LEW-13101-1]	c25 N79-14173	HENDRICKS, H. D.	
HEIDMANN, E. P.		Method of detecting oxygen in a gas	
Injector for bipropellant rocket engines Patent		[NASA-CASE-LAR-10668-1]	c06 N73-16106
[NASA-CASE-XNP-00148]	c28 N70-39710	HENLEY, W. H.	
Instrument for the quantitative measurement of radiation at multiple wave lengths Patent		Method of fabricating an object with a thin wall having a precisely shaped slit	
[NASA-CASE-XLE-00011]	c14 N70-41946	[NASA-CASE-LAR-10409-1]	c31 N74-21059
Control of transverse instability in rocket combustors Patent		HENNIGAN, T. J.	
[NASA-CASE-XLE-04603]	c33 N71-21507	Apparatus for measuring swelling characteristics of membranes	
Burning rate control of solid propellants Patent		[NASA-CASE-XGS-03865]	c14 N69-21363
[NASA-CASE-XLE-03494]	c27 N71-21819	Prevention of pressure build-up in electrochemical cells Patent	
HEIDT, M. F.		[NASA-CASE-XGS-01419]	c03 N70-41864
Ultrastable calibrated light source		Non-magnetic battery case Patent	
[NASA-CASE-MSC-12293-1]	c14 N72-27411	[NASA-CASE-XGS-00886]	c03 N71-11053
HEIER, W. C.			
Method for molding compounds Patent			

INVENTOR INDEX

HILLMAN, J. J.

Method and apparatus for battery charge control Patent
[NASA-CASE-IGS-05432] c03 N71-19438

Sealing device for an electrochemical cell Patent
[NASA-CASE-IGS-02630] c03 N71-22974

Sealed electrochemical cell provided with a flexible casing Patent
[NASA-CASE-IGS-01513] c03 N71-23336

HEERY, A. W.
Dicyanoacetylene polymers Patent
[NASA-CASE-INP-03250] c06 N71-23500

HEERY, B. Z., JR.
Variable geometry manned orbital vehicle Patent
[NASA-CASE-XLA-03691] c31 N71-15674

Variable dibedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132

HEERY, V. P.
Systems and methods for determining radio frequency interference
[NASA-CASE-GSC-12150-1] c32 N79-11265

HEPPNER, J. P.
Wide range linear fluxgate magnetometer Patent
[NASA-CASE-IGS-01587] c14 N71-15962

HERBELL, T. P.
Gas purged dry box glove Patent
[NASA-CASE-XLE-02531] c05 N71-23080

Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent
[NASA-CASE-XLE-03940] c18 N71-26153

Refractory metal base alloy composites
[NASA-CASE-XLE-03940-2] c17 N72-28536

HERMAN, C. P.
Differential pulse code modulation
[NASA-CASE-HSC-12506-1] c32 N77-12239

HERMANN, A. B.
Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent
[NASA-CASE-NPO-10373] c03 N71-18698

HERMESMEYER, C. E.
Method and apparatus for quadriphase-shift-key and linear phase modulation
[NASA-CASE-NPO-14444-1] c32 N79-18155

HEROLD, C. P.
Quick attach and release fluid coupling assembly Patent
[NASA-CASE-IXS-01985] c15 N71-10782

HERR, R. W.
A support technique for vertically oriented launch vehicles
[NASA-CASE-XLA-02704] c11 N69-21540

HERRMANN, A. L.
Locking device with rolling detents Patent
[NASA-CASE-INP-01371] c15 N70-41829

HERRON, B. G.
Power control circuit
[NASA-CASE-INP-02713] c10 N69-39888

HESPEWIDE, W. B.
Variable direction force coupler
[NASA-CASE-MFS-20317] c15 N73-13463

HESS, D. A.
Passive propellant system
[NASA-CASE-MFS-23642-2] c20 N78-27176

HESS, R. V.
A technique for breaking ice in the path of a ship
[NASA-CASE-LAR-10815-1] c16 N72-22520

HESS, R. W.
Contour surveying system Patent
[NASA-CASE-XLA-08646] c14 N71-17586

HESTER, B. B.
Current regulating voltage divider
[NASA-CASE-MFS-20935] c09 N71-34212

HETHCOAT, J. P.
Thruster maintenance system Patent
[NASA-CASE-MFS-20325] c28 N71-27095

HEWES, D. E.
Rotating space station simulator Patent
[NASA-CASE-XLA-03127] c11 N71-10776

Reduced gravity simulator Patent
[NASA-CASE-XLA-01787] c11 N71-16028

HEYMAN, J. S.
Ultrasonic calibration device
[NASA-CASE-LAR-11435-1] c35 N76-15432

CW ultrasonic bolt tensioning monitor
[NASA-CASE-LAR-12016-1] c39 N78-15512

A phase insensitive ultrasonic transducer
[NASA-CASE-LAR-12304-1] c71 N78-29871

Pseudo continuous wave instrument
[NASA-CASE-LAR-12260-1] c35 N79-10390

HEYSEER, R. C.
Temperature control system with a pulse width modulated bridge
[NASA-CASE-NPO-11304] c14 N73-26430

HEYSON, H. H.
Variable geometry wind tunnels
[NASA-CASE-XLA-07430] c11 N72-22246

HIEBA, L. S.
Controller for computer control of brushless DC motors
[NASA-CASE-NPO-13970-1] c33 N79-20315

HIGA, W. H.
Refrigeration apparatus
[NASA-CASE-NPO-10309] c15 N69-23190

Refrigeration apparatus Patent
[NASA-CASE-INP-08877] c15 N71-23025

Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590

HIGBY, R. P.
Electronic background suppression method and apparatus for a field scanning sensor
[NASA-CASE-IGS-05211] c07 N69-39980

HIGH, R. W.
Meteoroid capture cell construction
[NASA-CASE-MSC-12423-1] c91 N76-30131

HILBERT, E. E.
Data multiplexer using tree switching configuration
[NASA-CASE-NPO-11333] c08 N72-22162

Flexible computer accessed telemetry
[NASA-CASE-NPO-11358] c07 N72-25172

Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel
[NASA-CASE-NPO-13545-1] c32 N77-12240

HILBORN, E. H.
Method and means for an improved electron beam scanning system Patent
[NASA-CASE-ERC-10552] c09 N71-12539

Fluidic-thermoachronic display device Patent
[NASA-CASE-ERC-10031] c12 N71-18603

Plasma fluidic hybrid display Patent
[NASA-CASE-ERC-10100] c09 N71-33519

HILDEBRANDT, A. F.
Helium refining by superfluidity Patent
[NASA-CASE-INP-00733] c06 N70-34946

Continuous magnetic flux pump
[NASA-CASE-INP-01187] c15 N73-28516

Superconductive magnetic-field-trapping device
[NASA-CASE-INP-01185] c26 N73-28710

Magnetic-flux pump
[NASA-CASE-INP-01188] c15 N73-32361

HILKER, W. R.
Folding structure fabricated of rigid panels
[NASA-CASE-IRQ-02146] c18 N75-27040

HILL, E. K.
Ultrasonic scanner for radial and flat panels
[NASA-CASE-MFS-20335-1] c35 N74-10415

HILL, O. E.
Burst diaphragm flow initiator Patent
[NASA-CASE-MFS-12915] c11 N71-17600

Wind tunnel test section
[NASA-CASE-MFS-20509] c11 N72-17183

HILL, P. E.
Heat protection apparatus Patent
[NASA-CASE-XLA-00892] c33 N71-17897

Kinesthetic control simulator
[NASA-CASE-LAR-10276-1] c09 N75-15662

HILL, W. E.
Sprayable low density ablator and application process
[NASA-CASE-MFS-23506-1] c24 N78-24290

HILLBERG, E. T.
Load relieving device Patent
[NASA-CASE-INS-06329-1] c15 N71-20441

HILLBORN, E. H.
Color television systems using a single gun color cathode ray tube Patent
[NASA-CASE-ERC-10098] c09 N71-28618

HILLIS, D. A.
Drift compensation circuit for analog to digital converter Patent
[NASA-CASE-INP-04780] c08 N71-19687

HILLMAN, C. E., JR.
Snap-in compressible biomedical electrode
[NASA-CASE-MSC-14623-1] c52 N77-28717

HILLMAN, J. J.
Thermal compensator for closed-cycle helium refrigerator

[NASA-CASE-GSC-12168-1] c31 N79-17029
HILTON, G. E.
 Position location and data collection system and method Patent
 [NASA-CASE-GSC-10083-1] c30 N71-14090
HIMMELBRIGHT, R. E.
 High-temperature, high-pressure spherical segment valve Patent
 [NASA-CASE-XAC-00074] c15 N70-34817
HIRAYAMA, C.
 Glass-to-metal seals comprising relatively high expansion metals
 [NASA-CASE-LEW-10698-1] c37 N74-21063
HIRSHFIELD, S. E.
 Gas liquefaction and dispensing apparatus Patent
 [NASA-CASE-NPO-10070] c15 N71-27372
 Novel polymers and method of preparing same
 [NASA-CASE-NPO-10998-1] c06 N73-32029
HITCHMAN, H. J.
 Automatic real-time pair-feeding system for animals
 [NASA-CASE-ARC-10302-1] c51 N74-15778
HOBERT, H. P.
 Liquid flow sight assembly Patent
 [NASA-CASE-XLE-02998] c14 N70-42074
HOBBBS, A. J.
 Method and apparatus for determining the contents of contained gas samples
 [NASA-CASE-GSC-10903-1] c14 N73-12444
HOBLIN, L. E.
 Unfurlable structure including coiled strips thrust launched upon tension release Patent
 [NASA-CASE-HQN-00937] c07 N71-28979
HOCHHAIR, E. S.
 Gyrator employing field effect transistors
 [NASA-CASE-MFS-21433] c09 N73-20232
 Integrated P-channel MOS gyrator
 [NASA-CASE-MFS-22343-1] c33 N74-34638
 Integrable power gyrator
 [NASA-CASE-MFS-22342-1] c33 N75-30428
HODDER, D. T.
 Apparatus for remote handling of materials
 [NASA-CASE-LAR-10634-1] c37 N74-18123
HODGES, D. E.
 Hingeless helicopter rotor with improved stability
 [NASA-CASE-ARC-10807-1] c05 N77-17029
HOFFLER, G. W.
 Apparatus and method for processing Korotkov sounds
 [NASA-CASE-MSC-13999-1] c52 N74-26626
 A logic-controlled occlusive cuff system
 [NASA-CASE-MSC-14836-1] c52 N76-27839
HOFFMAN, C. A.
 Method for alleviating thermal stress damage in laminates
 [NASA-CASE-LEW-12493-1] c24 N78-22163
HOFFMAN, D. G.
 Light detection instrument Patent
 [NASA-CASE-XGS-05534] c23 N71-16355
HOFFMAN, E. L.
 Flexible foam erectable space structures Patent
 [NASA-CASE-XLA-00686] c31 N70-34135
HOFFMAN, H. C.
 Gravity gradient attitude control system Patent
 [NASA-CASE-GSC-10555-1] c21 N71-27324
 Active nutation controller
 [NASA-CASE-GSC-12273-1] c18 N78-23141
HOFFMAN, I. S.
 Impact energy absorber Patent
 [NASA-CASE-XLA-01530] c14 N71-23092
 Self-supporting strain transducer
 [NASA-CASE-LAR-11263-1] c35 N75-33369
 Miniature biaxial strain transducer
 [NASA-CASE-LAR-11648-1] c35 N77-14407
HOFFMAN, L. A.
 Compensating bandwidth switching transients in an amplifier circuit Patent
 [NASA-CASE-XNP-01107] c10 N71-28859
HOFFMAN, T. E.
 Tunable cavity resonator with ramp shaped supports
 [NASA-CASE-HQN-10790-1] c36 N74-11313
HOHL, F.
 Volumetric direct nuclear pumped laser
 [NASA-CASE-LAR-12183-1] c36 N79-18307
HOKLO, K. E.
 Welding blades to rotors
 [NASA-CASE-LEW-10533-1] c15 N73-28515
HOLDEN, L. B.
 Microwave integrated circuit for Josephson voltage standards
 [NASA-CASE-MFS-23845-1] c33 N78-32347
HOLDEN, G. E.
 Balanced bellows spirometer
 [NASA-CASE-XAR-01547] c05 N69-21473
HOLDEBER, O. C.
 Electric arc driven wind tunnel Patent
 [NASA-CASE-XMP-00411] c11 N70-36913
HOLDERMAN, L. E.
 Germanium coated microbridge and method
 [NASA-CASE-MFS-23274-1] c33 N78-13320
HOLDREN, R. T., III
 Radar calibration sphere
 [NASA-CASE-XLA-11154] c07 N72-21117
HOLDS, J. E.
 Digital second-order phase-locked loop
 [NASA-CASE-NPO-11905-1] c33 N74-12887
HOLESKI, D. E.
 Apparatus for absorbing and measuring power Patent
 [NASA-CASE-XLE-00720] c14 N70-40201
HOLKO, K. E.
 Enhanced diffusion welding
 [NASA-CASE-LEW-11388-1] c15 N73-32358
 Apparatus for welding blades to rotors
 [NASA-CASE-LEW-10533-2] c37 N74-11300
 Diffusion welding in air
 [NASA-CASE-LEW-11387-1] c37 N74-18128
 Diffusion welding
 [NASA-CASE-LEW-11388-2] c37 N74-21055
HOLLAHAN, J. E.
 Method of preparing water purification membranes
 [NASA-CASE-ARC-10643-1] c25 N75-12087
 Water purification process
 [NASA-CASE-ARC-10643-2] c51 N75-13506
 Abrasion resistant coatings for plastic surfaces
 [NASA-CASE-ARC-10915-3] c24 N77-24200
HOLLAND, V. B.
 Signal conditioning circuit apparatus
 [NASA-CASE-ARC-10348-1] c33 N75-19518
HOLLANDER, J.
 Polyurethanes of fluorine containing polycarbonates
 [NASA-CASE-MFS-10512] c06 N73-30099
 Highly fluorinated polymers
 [NASA-CASE-MFS-11492] c06 N73-30102
HOLLANDER, J. E., JR.
 Oxygen post-treatment of plastic surface coated with plasma polymerized silicon-containing monomers
 [NASA-CASE-ARC-10915-2] c27 N79-18052
HOLLEMAN, E. C.
 Three axis controller Patent
 [NASA-CASE-XFR-00181] c21 N70-33279
HOLLEWBAUGH, R. C.
 Position location system and method Patent
 [NASA-CASE-GSC-10087-2] c21 N71-13958
 Position location and data collection system and method Patent
 [NASA-CASE-GSC-10083-1] c30 N71-16090
 Traffic control system and method Patent
 [NASA-CASE-GSC-10087-1] c02 N71-19287
 Position location system and method
 [NASA-CASE-GSC-10087-3] c07 N72-12080
 Doppler compensation by shifting transmitted object frequency within limits
 [NASA-CASE-GSC-10087-4] c07 N73-20174
HOLLEY, L. D.
 Automatic lightning detection and photographic system
 [NASA-CASE-KSC-10728-1] c14 N73-32319
 Microcomputerized electric field meter diagnostic and calibration system
 [NASA-CASE-KSC-11035-1] c35 N78-28411
HOLLIDAY, E. L.
 Precision alignment apparatus for cutting a workpiece
 [NASA-CASE-LAR-11658-1] c37 N77-14478
HOLLIS, B. E.
 Method of construction of a multi-cell solar array
 [NASA-CASE-MFS-23540-1] c44 N78-17468
HOLLIS, B. E., JR.
 Multilevel metallization method for fabricating a metal oxide semiconductor device
 [NASA-CASE-MFS-23541-1] c76 N79-14906
HOLMAN, R. V.
 Latching mechanism Patent
 [NASA-CASE-XMS-03745] c15 N71-21076
HOLMES, B. K.
 Inflatable transpiration cooled nozzle

INVENTOR INDEX

HOWARD, E. A.

[NASA-CASE-MFS-20619]	c28 N72-11708	[NASA-CASE-MFS-21233-1]	c38 N74-15395
HOLMES, H. K.		Ultrasonic bone densitometer	
Velocity limiting safety system Patent		[NASA-CASE-MFS-20994-1]	c35 N75-12271
[NASA-CASE-XLA-07473]	c15 N71-24895	HOOPER, C. D.	
HOLMES, J. F.		Extensometer Patent	
Oceanic wave measurement system		[NASA-CASE-XMP-04680]	c15 N71-19489
[NASA-CASE-MFS-23862-1]	c48 N79-10689	HOOPER, B. B.	
HOLMES, L., JR.		Collimator of multiple plates with axially	
Ruler for making navigational computations		aligned identical random arrays of apertures	
[NASA-CASE-XNP-01458]	c04 N78-17031	[NASA-CASE-MFS-20546-2]	c14 N73-30389
HOLMES, R. F.		Automatic lightning detection and photographic	
Catalyst cartridge for carbon dioxide reduction		system	
unit		[NASA-CASE-KSC-10728-1]	c14 N73-32319
[NASA-CASE-LAR-10551-1]	c25 N74-12813	Three mirror glancing incidence system for X-ray	
Heat exchanger		telescope	
[NASA-CASE-MFS-22991-1]	c34 N77-10463	[NASA-CASE-MFS-21372-1]	c74 N74-27866
HOLMES, S. J.		Multiplate focusing collimator	
Ultraviolet filter		[NASA-CASE-MFS-20932-1]	c35 N75-19616
[NASA-CASE-XNP-02340]	c23 N69-24332	HOOPER, R. J.	
HOLMES, T. H.		Extrusion die for refractory metals Patent	
Vibration damping system Patent		[NASA-CASE-XLE-06773]	c15 N71-23817
[NASA-CASE-XMS-01620]	c23 N71-15673	HOPKINS, P. H.	
HOLMES, W. T.		Differential phase shift keyed communication	
Lifting body Patent Application		system	
[NASA-CASE-FRC-10063]	c01 N71-12217	[NASA-CASE-MSC-14065-1]	c32 N74-26654
HOLMSTROM, F. R.		Differential phase shift keyed signal resolver	
Shielded cathode mode bulk effect devices		[NASA-CASE-MSC-14066-1]	c33 N74-27705
[NASA-CASE-ERC-10119]	c26 N72-21701	Apparatus and method for stabilized phase	
HOLWACH, J.		detection for binary signal tracking loops	
Sound-suppressing structure with thermal relief		[NASA-CASE-MSC-16461-1]	c33 N79-11313
[NASA-CASE-LEW-12658-1]	c71 N79-14871	HOPKINS, V.	
HOLT, H. M.		Inorganic solid film lubricants Patent	
Transient-compensated SCR inverter		[NASA-CASE-XMP-03988]	c15 N71-21403
[NASA-CASE-XLA-08507]	c09 N69-39984	HOPPING, R. L.	
SCR blocking pulse gate amplifier Patent		Landing gear Patent	
[NASA-CASE-XLA-07497]	c09 N71-12514	[NASA-CASE-XMP-01174]	c02 N70-41589
HOLT, H. I.		HORNE, W. B.	
Scan converting video tape recorder		Aircraft wheel spray drag alleviator Patent	
[NASA-CASE-NPO-10166-1]	c07 N73-22076	[NASA-CASE-XLA-01583]	c02 N70-36825
Scan converting video tape recorder		HORNER, J. L.	
[NASA-CASE-NPO-10166-2]	c35 N76-16391	Photographic film restoration system	
Electromagnetic transducer recording head having		[NASA-CASE-MSC-12448-1]	c14 N72-20394
a laminated core section and tapered gap		Optical noise suppression device and method	
[NASA-CASE-NPO-10711-1]	c35 N77-21392	[NASA-CASE-MSC-12640-1]	c74 N76-31998
HOLVIZ, H. F.		HORTON, D. B.	
Coating process		Instrument support with precise lateral	
[NASA-CASE-XNP-06508]	c18 N69-39895	adjustment Patent	
HOLWAY, H. P.		[NASA-CASE-XMP-00480]	c14 N70-39898
Model launcher for wind tunnels Patent		HOFTON, J. C.	
[NASA-CASE-XNP-03578]	c11 N71-23030	Method of making impurity-type semiconductor	
HOMES, R. J.		electrical contacts Patent	
Multiparameter vision testing apparatus		[NASA-CASE-XMP-01016]	c26 N71-17818
[NASA-CASE-MSC-13601-2]	c54 N75-27759	HOHTON, R. L.	
HONEY, R. W.		Method and apparatus for mapping planets	
Optimum predetection diversity receiving system		[NASA-CASE-NPO-11001]	c07 N72-21118
Patent		HOSETHIEN, H. H.	
[NASA-CASE-XGS-00740]	c07 N71-23098	Adaptive tracking notch filter system Patent	
HONEYCUTT, L., III		[NASA-CASE-XMP-01892]	c10 N71-22986
Thermal shock and erosion resistant tantalum		HOTZ, G. H.	
carbide ceramic material		Soil penetrometer	
[NASA-CASE-LAR-11902-1]	c27 N78-17206	[NASA-CASE-XNP-05530]	c14 N73-32321
HONG, J. P.		Burrowing apparatus	
Real time analysis of voiced sounds		[NASA-CASE-XNP-07169]	c15 N73-32362
[NASA-CASE-NPO-13465-1]	c32 N76-31372	HOUCK, W. H.	
HONG, S. D.		Voltage dropout sensor Patent	
Double-beam optical method and apparatus for		[NASA-CASE-KSC-10020]	c10 N71-27338
measuring thermal diffusivity and other		Ripple indicator	
molecular dynamic processes in utilizing the		[NASA-CASE-KSC-10162]	c09 N72-11225
transient thermal lens effect		Signal conditioner test set	
[NASA-CASE-NPO-14657-1]	c74 N79-17683	[NASA-CASE-KSC-10750-1]	c35 N75-12270
HONNELL, H. A.		HOUSEMAN, J.	
Automatic frequency control for FM transmitter		Hydrogen rich gas generator	
[NASA-CASE-MFS-21540-1]	c32 N74-19790	[NASA-CASE-NPO-13342-1]	c37 N76-16446
Isolated output system for a class D		Hydrogen-rich gas generator	
switching-mode amplifier		[NASA-CASE-NPO-13464-1]	c44 N76-18642
[NASA-CASE-MFS-21616-1]	c33 N75-30429	Hydrogen rich gas generator	
Frequency modulated oscillator		[NASA-CASE-NPO-13342-2]	c44 N76-29700
[NASA-CASE-MFS-23181-1]	c33 N77-17351	Hydrogen rich gas generator	
HOOD, R. T.		[NASA-CASE-NPO-13464-2]	c44 N76-29704
Hall current measuring apparatus having a series		Hydrogen-rich gas generator	
resistor for temperature compensation Patent		[NASA-CASE-NPO-13560-1]	c44 N77-10636
[NASA-CASE-XAC-01662]	c14 N71-23037	Combustion engine	
HOOD, W. R.		[NASA-CASE-NPO-13671-1]	c37 N77-31497
Detection of the transitional layer between		HOWARD, E. A.	
laminar and turbulent flow areas on a wing		Soil penetrometer	
surface		[NASA-CASE-XNP-05530]	c14 N73-32321
[NASA-CASE-LAR-12261-1]	c02 N79-16805	Burrowing apparatus	
HOOP, J. H.		[NASA-CASE-XNP-07169]	c15 N73-32362
Method and apparatus for nondestructive testing			

- HOWARD, P. S.
Zero gravity shadow shield aligner
[NASA-CASE-KSC-10622-1] c31 N72-21893
Geysering inhibitor for vertical cryogenic
transfer pipe
[NASA-CASE-KSC-10615] c15 N73-12486
Floating baffle to improve efficiency of liquid
transfer from tanks
[NASA-CASE-KSC-10639] c15 N73-26472
Zero gravity liquid transfer screen
[NASA-CASE-KSC-10626] c14 N73-27378
- HOWARD, J. C.
Means for suppressing or attenuating bending
motion of elastic bodies Patent
[NASA-CASE-IAC-05632] c32 N71-23971
G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806] c06 N74-27872
G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381
- HOWARD, P. W.
Apparatus for reducing aerodynamic noise in a
wind tunnel
[NASA-CASE-MFS-23099-1] c09 N76-23273
- HOWARD, W. D.
Method and device for detecting voids in low
density material Patent
[NASA-CASE-MFS-20044] c14 N71-28993
- HOWARD, W. H.
Skeletal stressing method and apparatus Patent
[NASA-CASE-ARC-10100-1] c05 N71-24738
Programmable physiological infusion
[NASA-CASE-ARC-10447-1] c52 N74-22771
Tread drum for animals
[NASA-CASE-ARC-10917-1] c51 N78-27733
- HOWARTH, J. T.
Non-flammable elastomeric fiber from a
fluorinated elastomer and containing an
halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213
Process for spinning flame retardant elastomeric
compositions
[NASA-CASE-MSC-14331-3] c27 N78-32262
- HOWE, R. D.
Ozonation of cooling tower waters
[NASA-CASE-NPO-14340-1] c25 N79-10167
- HOWE, T. L.
Strain gauge ambiguity sensor for segmented
mirror active optical system
[NASA-CASE-MFS-20506-1] c35 N75-12273
- HOWELL, J. H.
Device for directionally controlling
electromagnetic radiation Patent
[NASA-CASE-XLE-01716] c09 N70-40234
- HOWELL, W. R.
Fringe counter for interferometers Patent
[NASA-CASE-LAR-10204] c14 N71-27215
Star image motion compensator
[NASA-CASE-LAR-10523-1] c14 N72-22444
- HOWELL, W. L.
Fluid thrust control system
[NASA-CASE-XMF-05964-1] c20 N79-21124
- HOWLAND, B. T.
High pressure air valve Patent
[NASA-CASE-MSC-11010] c15 N71-19485
- HOYT, R. P.
In situ transfer standard for ultrahigh vacuum
gage calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092
- HRACH, F. J.
Capacitor and method of making same Patent
[NASA-CASE-LEW-10364-1] c09 N71-13522
- HRON, R. L.
Load current sensor for a series pulse width
modulated power supply
[NASA-CASE-GSC-10656-1] c09 N72-25249
- HRUBY, R. J.
Microwave flaw detector Patent
[NASA-CASE-ARC-10009-1] c15 N71-17822
Transient video signal recording with expanded
playback Patent
[NASA-CASE-ARC-10003-1] c09 N71-25866
Method and apparatus for swept-frequency
impedance measurements of welds
[NASA-CASE-ARC-10176-1] c15 N72-21464
Coaxial inverted geometry transistor having
buried emitter
[NASA-CASE-ARC-10330-1] c09 N73-32112
- Twin-capacitive shaft angle encoder with analog
output signal
[NASA-CASE-ARC-10897-1] c33 N77-31404
- BRZYKIEWICZ, E.
Vehicle for use in planetary exploration
[NASA-CASE-NPO-11366] c11 N73-26238
- HSU, G. C.
Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NPO-13620-1] c27 N77-30236
Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527
Coal desulfurization
[NASA-CASE-NPO-14272-1] c25 N78-33164
Surfactant-assisted liquefaction of particulate
carbonaceous substances
[NASA-CASE-NPO-13904-1] c25 N79-11152
- HSU, L. C.
Catalytic trimerization of aromatic nitriles and
triaryl-s-triazine ring cross-linked high
temperature resistant polymers and copolymers
made thereby
[NASA-CASE-LEW-12053-2] c23 N77-32244
Trimerization of aromatic nitriles
[NASA-CASE-LEW-12053-1] c27 N78-15276
In situ self cross-linking of polyvinyl alcohol
battery separators
[NASA-CASE-LEW-12972-1] c23 N78-22157
Method of cross-linking polyvinyl alcohol and
other water soluble resins
[NASA-CASE-LEW-13103-1] c25 N79-14172
Cross-linked polyvinyl alcohol and method of
making same
[NASA-CASE-LEW-13101-1] c25 N79-14173
In-situ cross-linking of polyvinyl alcohol
[NASA-CASE-LEW-13135-1] c25 N79-14174
- HSU, Y.-Y.
Slug flow magnetohydrodynamic generator
[NASA-CASE-XLE-02083] c03 N69-39983
- HUBBARD, W. P.
Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267
- HUBER, C. S.
Modification of the physical properties of
freeze-dried rice
[NASA-CASE-MSC-13540-1] c05 N72-33096
- HUBER, R. P.
Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c08 N79-15057
- HUBER, W. C.
Hand-held self-maneuvering unit Patent
[NASA-CASE-XMS-05304] c05 N71-12336
Inflatable tether Patent
[NASA-CASE-XMS-10993] c15 N71-28936
Foldable construction block
[NASA-CASE-MSC-12233-1] c15 N72-25454
Foldable construction block
[NASA-CASE-MSC-12233-2] c32 N73-13921
Fluid valve assembly
[NASA-CASE-MSC-12731-1] c37 N78-25426
- HUDIS, M.
Preparation of dielectric coating of variable
dielectric constant by plasma polymerization
[NASA-CASE-ARC-10892-2] c27 N79-14214
- HUDOCK, R. J.
Reference apparatus for medical ultrasonic
transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760
- HUDSON, O. K.
Gravimeter Patent
[NASA-CASE-XMF-05844] c14 N71-17587
- HUDSPETH, T.
Phase demodulation system with two phase locked
loops Patent
[NASA-CASE-XNP-00777] c10 N71-19469
- HUELSHAN, L. P.
RC networks and amplifiers employing the same
[NASA-CASE-XAC-05462-2] c10 N72-17171
- HUEY, D. C.
Digital numerically controlled oscillator
[NASA-CASE-MSC-16747-1] c33 N79-17138
- HOPP, R. G.
Apparatus for sensing temperature
[NASA-CASE-XLE-05230] c14 N72-27410
Method of making apparatus for sensing temperature
[NASA-CASE-XLE-05230-2] c14 N73-13417
Jet exhaust noise suppressor
[NASA-CASE-LEW-11286-1] c07 N74-27490
- HOPFNER, R. H.
Laser Doppler system for measuring three

INVENTOR INDEX

INGHAM, J. D.

dimensional vector velocity Patent
[NASA-CASE-MFS-20386] c21 N71-19212

Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028

Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493

Wind measurement system
[NASA-CASE-MFS-23362-1] c47 N77-10753

HUGGINS, C. T.
Solid state television camera system Patent
[NASA-CASE-IMP-06092] c07 N71-24612

HUGHES, B. C.
Air bearing Patent
[NASA-CASE-IMP-00339] c15 N70-39896

HUGHES, D. B.
Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-10766-1] c14 N72-21432

Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

HUGHES, F. H.
Meteoroid detector
[NASA-CASE-LAR-10483-1] c14 N73-32327

HUMBERT, J. E.
Automatic real-time pair-feeding system for animals
[NASA-CASE-ARC-10302-1] c51 N74-15778

HUMENIK, F. H.
Gas turbine combustor Patent
[NASA-CASE-LFW-10286-1] c28 N71-28915

HUMES, D. E.
Impact measuring technique
[NASA-CASE-LAR-10913] c14 N72-16282

HUNNER, R. F.
Camera arrangement
[NASA-CASE-GSC-12032-2] c35 N76-19408

HUNTERBY, H. F.
Ozonation of cooling tower waters
[NASA-CASE-NPO-14340-1] c25 N79-10167

Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

HUNGERFORD, W. J.
Conforming polisher for aspheric surface of revolution Patent
[NASA-CASE-IGS-02884] c15 N71-22705

HUNKLER, R. E.
Foamed in place ceramic refractory insulating material Patent
[NASA-CASE-IGS-02435] c18 N71-22998

HUNT, G. H.
System for the measurement of ultra-low stray light levels
[NASA-CASE-MFS-23513-1] c74 N79-11865

HUNT, J. G.
Method of hydrostatically extruding refractory materials
[NASA-CASE-NPO-10811] c15 N71-34425

Extrusion can
[NASA-CASE-NPO-10812] c15 N73-13464

HUNT, J. L.
Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168

HUNT, S. R., JR.
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759

HUNTER, R. E.
Method and apparatus for neutralizing potentials induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429

HUNTRESS, W. T.
Ion and electron detector for use in an ICR spectrometer
[NASA-CASE-NPO-13479-1] c35 N77-10492

HURD, W. A.
System for the measurement of ultra-low stray light levels
[NASA-CASE-MFS-23513-1] c74 N79-11865

HURD, W. J.
Digital filter for reducing sampling jitter in digital control systems Patent
[NASA-CASE-NPO-11088] c08 N71-29034

Transition tracking bit synchronization system
[NASA-CASE-NPO-10844] c07 N72-20140

Digital quasi-exponential function generator
[NASA-CASE-NPO-11130] c08 N72-20176

Code regenerative clean-up loop transponder for a mu-type ranging system
[NASA-CASE-NPO-11707] c07 N73-25161

HURSTA, W. W.
A logic-controlled occlusive cuff system
[NASA-CASE-MSC-14836-1] c52 N76-27839

HUSAIN-ABIDI, A. S.
Optical data processing using paraboloidal mirror segments
[NASA-CASE-GSC-11296-1] c23 N73-30666

HUSCHKE, E. G., JR.
Method of joining aluminum to stainless steel Patent
[NASA-CASE-MFS-07369] c15 N71-20443

Brazing alloy composition
[NASA-CASE-IMP-06053] c26 N75-27126

Brazing alloy
[NASA-CASE-IMP-03878] c26 N75-27127

HUSHANN, O. K.
Multilayer porous ionizer Patent
[NASA-CASE-IMP-04338] c17 N71-23046

HUSSRY, H. W.
Filter regeneration systems
[NASA-CASE-MSC-14273-1] c34 N75-33342

HUTCHINSON, W. D.
Manually actuated heat pump
[NASA-CASE-NPO-10677] c05 N72-11084

HUTCHINSON, J. J.
Trifunctional alcohol
[NASA-CASE-NPO-10714] c06 N69-31244

Novel polycarboxylic prepolymeric materials and polymers thereof Patent
[NASA-CASE-NPO-10596] c06 N71-25929

HUTTO, R. J.
Radiation sensitive solid state switch
[NASA-CASE-NPO-10817-1] c08 N73-30135

HYER, E. L.
Audio signal processor Patent
[NASA-CASE-MSC-12223-1] c07 N71-26181

I-LECHAO, J.
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914

IANHINI, A. A.
Pressure sensitive transducers Patent
[NASA-CASE-ERC-10087] c14 N71-27334

Semiconductor transducer device
[NASA-CASE-ERC-10087-2] c14 N72-31446

ICHLAND, W. F.
Grain refinement control in TIG arc welding
[NASA-CASE-MSC-19095-1] c37 N75-19683

IDEN, R. B.
Method for determining presence of OH in magnesium oxide
[NASA-CASE-NPO-10774] c06 N72-17095

IGENBERGS, E. B.
Self-energized plasma compressor
[NASA-CASE-MFS-22145-1] c75 N75-13625

Two stage light gas-plasma projectile accelerator
[NASA-CASE-MFS-22287-1] c75 N76-14931

Self-energized plasma compressor
[NASA-CASE-MFS-22145-2] c75 N76-17951

IGOE, W. B.
Dynamic vibration absorber Patent
[NASA-CASE-LAR-10083-1] c15 N71-27006

ILES, P. A.
Method for producing a solar cell having an integral protective covering
[NASA-CASE-IGS-04531] c03 N69-24267

Method of coating solar cell with borosilicate glass and resultant product
[NASA-CASE-GSC-11514-1] c03 N72-24037

ILLG, W.
Hydraulic grip Patent
[NASA-CASE-ILA-05100] c15 N71-17696

Light shield and infrared reflector for fatigue testing Patent
[NASA-CASE-ILA-01782] c14 N71-26136

INBOLDI, E.
Tracking receiver Patent
[NASA-CASE-IGS-08679] c10 N71-21473

IRIG, L. A.
Anti-buckling fatigue test assembly
[NASA-CASE-LAR-10426-1] c09 N74-19528

INLAY, E. H.
Binary to binary-coded-decimal converter Patent
[NASA-CASE-IMP-00432] c08 N70-35423

INGHAM, J. D.
Dual membrane hollow fiber fuel cell and method

of operating same
[NASA-CASE-NPO-13732-1] c44 N79-10513

INGHAM, K. T.
Locking device for turbine rotor blades Patent
[NASA-CASE-XNP-00816] c28 N71-28928

INGLE, W. H.
A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control
[NASA-CASE-NPO-14474-1] c26 N78-27255

A process for converting amorphous to crystalline silicon with attendant purification
[NASA-CASE-NPO-14223-1] c25 N79-10168

A quartz ball valve
[NASA-CASE-NPO-14473-1] c37 N79-10427

IRICK, S. C.
Ejectable underwater sound source recovery assembly
[NASA-CASE-LAR-10595-1] c35 N74-16135

IRONS, A. S.
Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761

IRWIN, A. S.
Drilled ball bearing with a one piece anti-tipping cage assembly
[NASA-CASE-LRW-11925-1] c37 N75-31446

IRWIN, K. S.
Controlled visibility device for an aircraft Patent
[NASA-CASE-XPR-04147] c11 N71-10748

IRWIN, T. P.
Leading edge protection for composite blades
[NASA-CASE-XLE-12550-1] c24 N77-19170

ISLEY, W. C.
Heated porous plug microthruster
[NASA-CASE-GSC-10640-1] c28 N72-18766

IVES, R. E.
Computerized system for translating a torch head
[NASA-CASE-MFS-23620-1] c37 N79-10421

IWASAKI, W.
Control device Patent
[NASA-CASE-IAC-10019] c15 N71-23809

J

JACK, J. R.
Electro-thermal rocket Patent
[NASA-CASE-XLE-00267] c28 N70-33356

Electrothermal rockets having improved heat exchangers Patent
[NASA-CASE-XLE-01783] c28 N70-34175

JACKSON, C. H., JR.
Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955

JACKSON, K. B.
Optical alignment system Patent
[NASA-CASE-XNP-02029] c14 N70-41955

JACKSON, L. R.
Techniques for insulating cryogenic fuel containers Patent
[NASA-CASE-XLE-01967] c31 N70-42015

Structural panel
[NASA-CASE-LAR-11052-1] c32 N73-13929

Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120

JACKSON, R. H.
Directionally solidified eutectic gamma plus beta nickel-base superalloys
[NASA-CASE-LRW-12906-1] c26 N77-32279

Directionally solidified eutectic gamma-gamma nickel-base superalloys
[NASA-CASE-LRW-12905-1] c26 N78-18183

JACOB, D. S.
Pressure modulating valve
[NASA-CASE-MSC-14905-1] c37 N77-28487

JACOBS, I. H.
Data compression system
[NASA-CASE-XNP-09785] c08 N69-21928

JACOBS, J. H.
Biocontamination and particulate detection system
[NASA-CASE-NFO-13953-1] c51 N78-22587

JACOBS, R. B.
Densitometer Patent
[NASA-CASE-XLE-00688] c14 N70-41330

JACOBS, V. L.
Passive propellant system
[NASA-CASE-MFS-23642-2] c20 N78-27176

JACOBSON, D. S.
Hermetically sealed semiconductor

[NASA-CASE-GSC-10791-1] c15 N73-14469

JAGOW, R. B.
Process of forming catalytic surfaces for wet oxidation reactions.
[NASA-CASE-MSC-14831-1] c25 N78-10225

JAIN, A.
Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266

Surface roughness measuring system
[NASA-CASE-NPO-13862-1] c35 N79-10391

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-1] c32 N79-19195

JAKSTYS, V. J.
Composite antenna feed
[NASA-CASE-GSC-11046-1] c07 N73-28013

JALINEK, A., JR.
Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent
[NASA-CASE-XLA-02810] c14 N71-25901

Infrared horizon locator
[NASA-CASE-LAR-10726-1] c14 N73-20475

JALOFFKA, W. W.
Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N79-18307

JAMES, L. W.
III-V photocathode with nitrogen doping for increased quantum efficiency
[NASA-CASE-NPO-12134-1] c33 N76-31409

JAMES, R. J.
Resilient wheel Patent
[NASA-CASE-MFS-13929] c15 N71-27091

JAMIESON, J. B., JR.
Optical rotational sensor
[NASA-CASE-KSC-10752-1] c15 N73-27407

JANISON, H. H.
Ion-exchange membrane with platinum electrode assembly Patent
[NASA-CASE-XMS-02063] c03 N71-29044

JANEFF, W.
Tracking receiver Patent
[NASA-CASE-XGS-08679] c10 N71-21473

JANKOWSKI, P.
Quick disconnect filter coupling
[NASA-CASE-MFS-22323-1] c37 N76-14463

JANNICHE, P. J., JR.
Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent
[NASA-CASE-XGS-03632] c09 N71-23311

JANSEN, H. B.
Fluid thrust control system
[NASA-CASE-XNP-05964-1] c20 N79-21124

JAVAN, A.
Method and apparatus for stabilizing a gaseous optical maser Patent
[NASA-CASE-XGS-03644] c16 N71-18614

JEANE, H. L.
Priority interrupt system
[NASA-CASE-NPO-13067-1] c60 N76-18800

JRCH, R. W.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288

Method of making fiber reinforced metallic composites Patent
[NASA-CASE-XLE-00231] c17 N70-38198

Reinforced metallic composites Patent
[NASA-CASE-XLE-00228] c17 N70-38490

Method for producing fiber reinforced metallic composites Patent
[NASA-CASE-XLE-03925] c18 N71-22894

JEDLIKA, J. R.
Solid medium thermal engine
[NASA-CASE-AHC-10461-1] c44 N74-33379

JEFFERS, E. L.
Method and apparatus for eliminating luminol interference material
[NASA-CASE-MSC-16260-1] c51 N78-18674

Rapid, quantitative determination of bacteria in water
[NASA-CASE-GSC-12158-1] c51 N78-22585

Method and apparatus for continuous measurement of bacterial content of aqueous samples
[NASA-CASE-MSC-16779-1] c51 N78-22586

Method and automated apparatus for detecting coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588

INVENTOR INDEX

JOHNSON, J. D.

Water quality monitoring system [NASA-CASE-MSC-16778-1]	c51 N78-22589	[NASA-CASE-GSC-12190-1]	c33 N79-12321
JEFFERY, P. A. Compensating linkage for main rotor control [NASA-CASE-LAR-11797-1]	c08 N79-15057	JOHNSON, D. J. Spectrometer integrated with a facsimile camera [NASA-CASE-LAR-11207-1]	c35 N75-19613
JEPFREYS, H. B. Focused laser Doppler velocimeter [NASA-CASE-MFS-23178-1]	c35 N77-10493	JOHANSEN, K. G. Systems and methods for determining radio frequency interference [NASA-CASE-GSC-12150-1]	c32 N79-11265
JELALIAN, A. V. Clear air turbulence detector [NASA-CASE-MFS-21244-1]	c36 N75-15028	JOHANSEN, D. L. Articulated multiple couch assembly Patent [NASA-CASE-MSC-11253]	c05 N71-12343
Focused laser Doppler velocimeter [NASA-CASE-MFS-23178-1]	c35 N77-10493	Collapsible Apollo couch [NASA-CASE-MSC-13140]	c05 N72-11085
JELLISON, J. C. Resilience testing device Patent [NASA-CASE-XLA-08254]	c14 N71-26161	JOHNS, C. E. Continuously variable voltage controlled phase shifter [NASA-CASE-NPO-1-1129]	c09 N72-33204
JENKINS, K. H. Diode and protection fuse unit Patent [NASA-CASE-XKS-03381]	c09 N71-22796	JOHNSON, A. L., JR. Microelectronic module package Patent [NASA-CASE-XMS-02182]	c10 N71-28783
JENKINS, L. H. Indexed keyed connection Patent [NASA-CASE-XMS-02532]	c15 N70-41808	JOHNSON, C. B. Hypersonic test facility Patent [NASA-CASE-XLA-00378]	c11 N71-15925
JENKINS, R. K. Thermally conductive polymers [NASA-CASE-GSC-11304-1]	c06 N72-21105	Hypersonic test facility Patent [NASA-CASE-XLA-05378]	c11 N71-21475
JENNINGS, D. E. Shock isolator for operating a diode laser and closed-cycle refrigerator [NASA-CASE-GSC-12297-1]	c37 N78-19515	Image tube [NASA-CASE-GSC-11602-1]	c33 N74-21850
Thermal compensator for closed-cycle refrigerator [NASA-CASE-GSC-12168-1]	c31 N79-17029	JOHNSON, C. C. Visual target for retrofire attitude control [NASA-CASE-XMS-12158-1]	c31 N69-27499
JENSEN, A. R. Separation nut Patent [NASA-CASE-XGS-01971]	c15 N71-15922	Orbital escape device Patent [NASA-CASE-XMS-06162]	c31 N71-28851
JENSEN, C. A. Continuous plasma light source [NASA-CASE-XNP-04167-2]	c25 N72-24753	Stand-off type ablative heat shield [NASA-CASE-MSC-12143-1]	c33 N72-17947
Continuous plasma laser [NASA-CASE-XNP-04167-3]	c36 N77-19416	Amplitude steered array [NASA-CASE-GSC-11446-1]	c33 N74-20860
JENSEN, K. J. Failure sensing and protection circuit for converter networks Patent [NASA-CASE-GSC-10114-1]	c10 N71-27366	A reverse osmosis membrane of high urea rejection properties [NASA-CASE-ARC-10980-1]	c27 N77-18265
JENSEN, P. A. Low noise single aperture multinode monopulse antenna feed system Patent [NASA-CASE-XNP-01735]	c07 N71-22750	JOHNSON, C. C., JR. Space capsule Patent [NASA-CASE-XLA-00149]	c31 N70-37938
JENSEN, R. H. Solar heating system [NASA-CASE-LAR-12009-1]	c44 N78-15560	Space capsule Patent [NASA-CASE-XLA-01332]	c31 N71-15664
Combined solar collector and energy storage system [NASA-CASE-LAR-12205-1]	c44 N78-23567	JOHNSON, C. E. Impact testing machine Patent [NASA-CASE-XNP-04817]	c14 N71-23225
JEPPESEN, G. L. Deployable flexible tunnel [NASA-CASE-MFS-22636-1]	c37 N76-22540	JOHNSON, C. L. Holding process for imidazopyrrolone polymers [NASA-CASE-LAR-10547-1]	c31 N74-13177
JESSUP, A. D. Variable angle tube holder [NASA-CASE-LAR-10507-1]	c11 N72-25284	JOHNSON, C. W. Method of resolving clock synchronization error and means therefor Patent [NASA-CASE-XNP-08875]	c10 N71-23099
Lyophilized spore dispenser [NASA-CASE-LAR-10544-1]	c37 N74-13178	JOHNSON, E. G. System and method for tracking a signal source [NASA-CASE-HQN-10880-1]	c17 N78-17140
JETEE, J. D. Flammability test chamber Patent [NASA-CASE-KSC-10126]	c11 N71-24985	JOHNSON, E. T. Automated clinical system for chromosome analysis [NASA-CASE-NPO-13913-1]	c52 N79-12694
JEWELL, P. A. Data handling system based on source significance, storage availability and data received from the source Patent Application [NASA-CASE-XNP-04162-1]	c08 N70-34675	JOHNSON, F. W. Heat conductive resiliently compressible structure for space electronics package modules Patent [NASA-CASE-MSC-12389]	c33 N71-29052
JEWELL, R. A. Production of high purity silicon carbide Patent [NASA-CASE-XLA-00158]	c26 N70-36805	JOHNSON, H. G. Electronic checkout system for space vehicles Patent [NASA-CASE-XKS-08012-2]	c31 N71-15566
Apparatus for producing high purity silicon carbide crystals Patent [NASA-CASE-XLA-02057]	c26 N70-40015	JOHNSON, H. I. Training vehicle for controlling attitude Patent [NASA-CASE-XMS-02977]	c11 N71-10746
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent [NASA-CASE-XLA-00284]	c15 N71-16075	Gravity stabilized flying vehicle Patent [NASA-CASE-MSC-12111-1]	c02 N71-11039
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent [NASA-CASE-XLA-00302]	c15 N71-16077	Hand-held self-maneuvering unit Patent [NASA-CASE-XMS-05304]	c05 N71-12336
JEX, D. W. Liquid aerosol dispenser [NASA-CASE-MFS-20829]	c12 N72-21310	Fluid power transmission Patent [NASA-CASE-XMS-01445]	c12 N71-16031
Two stage light gas-plasma projectile accelerator [NASA-CASE-MFS-22287-1]	c75 N76-14931	Subgravity simulator Patent [NASA-CASE-XMS-04798]	c11 N71-21474
JHABVALA, H. O. Complementary DMOS-V MOS integrated circuit structure		Pneumatic amplifier Patent [NASA-CASE-MSC-12121-1]	c15 N71-27147
		JOHNSON, J. C., JR. Mechanical actuator Patent [NASA-CASE-XGS-04548]	c15 N71-24045
		JOHNSON, J. D. Wrist joint assembly [NASA-CASE-MFS-23311-1]	c54 N78-17676

JOHNSON, J. E.
Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384
Micro-fluid exchange coupling apparatus
[NASA-CASE-ARC-11114-1] c52 N78-33717

JOHNSON, J. L., JR.
Quiet jet transport aircraft
[NASA-CASE-LAR-11087-1] c02 N73-26008
High lift aircraft
[NASA-CASE-LAR-11252-1] c05 N75-25914

JOHNSON, K. G.
Positioning mechanism
[NASA-CASE-NPO-10679] c15 N72-21462

JOHNSON, R. C.
Enthalpy and stagnation temperature
determination of a high temperature laminar
flow gas stream Patent
[NASA-CASE-XLE-00266] c14 N70-34156

JOHNSON, R. E.
Acquisition and tracking system for optical radar
[NASA-CASE-MPS-20125] c16 N72-13437

JOHNSON, R. L.
Gas lubricant compositions Patent
[NASA-CASE-XLE-00353] c18 N70-39897
Metallic film diffusion for boundary lubrication
Patent
[NASA-CASE-XLE-01765] c18 N71-10772
Alloys for bearings Patent
[NASA-CASE-XLE-05033] c15 N71-23810
Metallic film diffusion for boundary lubrication
Patent
[NASA-CASE-XLE-10337] c15 N71-24046

JOHNSON, V. E., JR.
Hydrofoil Patent
[NASA-CASE-XLA-00229] c12 N70-33305

JOHNSTON, A. E.
Polarimeter for transient measurement Patent
[NASA-CASE-XNP-08883] c23 N71-16101
Light direction sensor
[NASA-CASE-NPO-11201] c14 N72-27409
Cooperative multi-axis sensor for teleoperation
of article manipulating apparatus
[NASA-CASE-NPO-13386-1] c54 N75-27758
Stark-effect modulation of CO2 laser with NH2D
[NASA-CASE-NPO-11945-1] c36 N76-18427

JOHNSTON, E. A.
Variable area exhaust nozzle
[NASA-CASE-LEW-12378-1] c07 N79-14097

JOHNSTON, J. D.
Combined docking and grasping device
[NASA-CASE-MFS-23088-1] c37 N77-23483
End effector device
[NASA-CASE-MFS-23692-1] c54 N78-19773
Pneumatic inflatable end effector
[NASA-CASE-MFS-23696-1] c54 N78-32724
Apparatus for assembling space structure
[NASA-CASE-MFS-23579-1] c18 N79-11108

JOHNSTON, J. E.
Electrostatic measurement system
[NASA-CASE-MFS-22129-1] c33 N75-18477

JOHNSTON, M. E.
Preparation of monotectic alloys having a
controlled microstructure by directional
solidification under dopant-induced interface
breakdown
[NASA-CASE-MFS-23816-1] c26 N79-16943

JOHNSTON, R. L.
Multiple environment materials test chamber
having a multiple port X-ray tube for
irradiating a plurality of samples Patent
[NASA-CASE-XMS-02930] c11 N71-23042

JOHNSTON, R. S.
Shock absorbing support and restraint means Patent
[NASA-CASE-XMS-01240] c05 N70-35152
Fabric for micrometeoroid protection
garment Patent
[NASA-CASE-MSC-12109] c18 N71-26285

JOHNSTON, W. V.
Heat flow calorimeter
[NASA-CASE-GSC-11434-1] c34 N74-27859

JOLLEY, J.
Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933

JONES, J. C.
Shock absorber Patent
[NASA-CASE-XMS-03722] c15 N71-21530

JONES, J. F.
Reinforced structural plastics
[NASA-CASE-LEW-10199-1] c27 N74-23125

JONES, J. H.
Lightning tracking system
[NASA-CASE-KSC-10729-1] c09 N73-32110
Lightning current measuring systems
[NASA-CASE-KSC-10807-1] c33 N75-26246

JONES, L. L.
Multiple circuit switch apparatus with improved
pivot actuator structure Patent
[NASA-CASE-XAC-03777] c10 N71-15909
Stereoscopic television system and apparatus
[NASA-CASE-ARC-10160-1] c23 N72-27728

JONES, R. A.
Flow field simulation Patent
[NASA-CASE-LAR-11138] c12 N71-20436
Method for determining thermo-physical
properties of specimens
[NASA-CASE-LAR-11053-1] c25 N74-18551
Auxiliary power system for activity cooled
aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332
Apparatus for determining thermophysical
properties of test specimens
[NASA-CASE-LAR-11883-1] c09 N77-27131

JONES, R. E.
Swirl can primary combustor
[NASA-CASE-LEW-11326-1] c23 N73-30665

JONES, R. H.
Apparatus for establishing flow of a fluid mass
having a known velocity
[NASA-CASE-MPS-21424-1] c34 N74-27730

JONES, R. J.
Capillary flow weld-bonding
[NASA-CASE-LAR-11726-1] c37 N76-27568

JONES, R. L.
Helmet assembly and latch means therefor Patent
[NASA-CASE-XMS-04935] c05 N71-11190

JONES, R. T.
Dual-fuselage aircraft having yawable wing and
horizontal stabilizer
[NASA-CASE-ARC-10470-1] c02 N73-26005
Oblique-wing supersonic aircraft
[NASA-CASE-ARC-10470-3] c05 N76-29217

JONES, W. C.
Rotational joint assembly for the prosthetic leg
[NASA-CASE-KSC-11004-1] c54 N77-30749

JONES, W. P.
Folded traveling wave maser structure Patent
[NASA-CASE-XNP-05219] c16 N71-15550
Superconducting magnet Patent
[NASA-CASE-XNP-06503] c23 N71-29049

JORDAN, A. W.
Electric storage battery
[NASA-CASE-NPO-11021] c03 N72-20032

JORDON, W. J.
Inspection gage for boss Patent
[NASA-CASE-XNP-04966] c14 N71-17658

JOSIAS, C. S.
Micro current measuring device using plural
logarithmic response heated filamentary type
diodes Patent
[NASA-CASE-XNP-00384] c09 N71-13530

JOSLYN, A. W.
Boiler for generating high quality vapor Patent
[NASA-CASE-XLE-00785] c33 N71-16104

JOYNER, U. T.
Nose gear steering system for vehicle with main
skids Patent
[NASA-CASE-XLA-01804] c02 N70-34160

JUDD, B. W.
Garments for controlling the temperature of the
body Patent
[NASA-CASE-XMS-10269] c05 N71-24147

JUDD, J. H.
Air frame drag balance Patent
[NASA-CASE-XLA-00113] c14 N70-33386
Spacecraft airlock Patent
[NASA-CASE-XLA-02050] c31 N71-22968
Light regulator
[NASA-CASE-LAR-10836-1] c26 N72-27784
Deposition apparatus
[NASA-CASE-LAR-10541-1] c15 N72-32487

JUDY, P. F.
Method and system for in vivo measurement of
bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737

JUERGENSEN, K.
Regenerative braking system Patent
[NASA-CASE-XNP-01096] c10 N71-16030

INVENTOR INDEX

KEAFER, L. S., JR.

JUHASZ, A. J.
Controlled separation combustor
[NASA-CASE-LEW-11593-1] c20 N76-14190

JURSCAGA, G. H.
Method of fabricating an article with cavities
[NASA-CASE-LAR-10318-1] c31 N74-18089

JUVINALL, G. L.
Trialkyl-diballotantalum and niobium compounds
Patent
[NASA-CASE-XNP-04023] c06 N71-28808

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KABANA, W. P.
Butt welder for fine gauge tungsten/rhenium thermocouple wire
[NASA-CASE-LAR-10103-1] c15 N73-14468

KAHLEBAUM, W. H., JR.
Chromatically corrected virtual image display
[NASA-CASE-LAR-12251-1] c74 N79-14892

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[NASA-CASE-NPO-10701] c06 N71-28620

Strain gage mounting assembly
[NASA-CASE-NPO-13170-1] c35 N74-14430

Coal desulfurization process
[NASA-CASE-NPO-13937-1] c44 N78-31527

KALKBRENNER, R. W.
Heat transfer device
[NASA-CASE-NPO-11120-1] c34 N74-18552

KALLINS, C.
Rotary actuator
[NASA-CASE-NPO-10244] c15 N72-26371

KAMI, S.
Gas regulator Patent
[NASA-CASE-NPO-10298] c12 N71-17661

KAMINSKAS, R. A.
Penetrating radiation system for detecting the amount of liquid in a tank Patent
[NASA-CASE-MSC-12280] c27 N71-16348

KAMMERMEYER, K.
Mixture separation cell Patent
[NASA-CASE-XMS-02952] c18 N71-20742

KAMPINSKY, A.
Method and apparatus for determining electromagnetic characteristics of large surface area passive reflectors Patent
[NASA-CASE-XGS-02608] c07 N70-41678

Apparatus providing a directive field pattern and attitude sensing of a spin stabilized satellite Patent
[NASA-CASE-XGS-02607] c31 N71-23009

KAMBER, E.
Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827

KANE, J. O.
Thermal barrier pressure seal
[NASA-CASE-MSC-18134-1] c37 N79-17225

KANE, T. E.
Spacecraft attitude control method and apparatus
[NASA-CASE-BQN-10439] c21 N72-21624

KAPUSTKA, R. E.
Method and apparatus for conditioning of nickel-cadmium batteries
[NASA-CASE-MPS-23270-1] c44 N78-25531

KARIGAW, G. R.
Accumulator
[NASA-CASE-MPS-19287-1] c34 N77-30399

KARIOTIS, A. E.
Compression test assembly
[NASA-CASE-LAR-10440-1] c14 N73-32323

KARSH, I.
Tape guidance system and apparatus for the provision thereof Patent
[NASA-CASE-XNP-09453] c08 N71-19420

Incremental tape recorder and data rate converter Patent
[NASA-CASE-XNP-02778] c08 N71-22710

KASPARECK, W. E.
Precision stepping drive Patent
[NASA-CASE-MPS-14772] c15 N71-17692

Fine adjustment mount
[NASA-CASE-MPS-20249] c15 N72-11386

Adjustable force probe
[NASA-CASE-MPS-20760] c14 N72-33377

KAST, B. E.
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106

Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467

KASTAN, H.
Absorptive splitter for closely spaced supersonic engine air inlets Patent
[NASA-CASE-XLA-02865] c28 N71-15563

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Diffractoid grating configuration for X-ray and ultraviolet focusing
[NASA-CASE-GSC-12357-1] c74 N78-32857

KATOW, H. S.
Multi-feed cone Cassegrain antenna Patent
[NASA-CASE-NPO-10539] c07 N71-11285

KATVALA, V. W.
Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N78-32260

Spray coating apparatus having a rotatable workpiece holder
[NASA-CASE-ARC-11110-1] c37 N78-32434

KATZ, L.
Force measuring instrument Patent
[NASA-CASE-XMF-00456] c14 N70-34705

Optimum predetection diversity receiving system Patent
[NASA-CASE-XGS-00740] c07 N71-23098

Apparatus for obtaining isotropic irradiation of a specimen
[NASA-CASE-MPS-20095] c24 N72-11595

KATZ, B. H.
Temperature reducing coating for metals subject to flame exposure Patent
[NASA-CASE-XLE-00035] c33 N71-2915

KATZBERG, S. J.
Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014

Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613

Device for measuring the contour of a surface
[NASA-CASE-LAR-11869-1] c74 N78-27904

KATEEN, B. D.
Protected isotope heat source
[NASA-CASE-LEW-11227-1] c73 N75-30876

KATZIN, L.
Breakaway connector
[NASA-CASE-NPO-11140] c15 N72-17455

KAUFMAN, H. R.
Ion thruster cathode
[NASA-CASE-XLE-07087] c06 N69-39889

Ion rocket Patent
[NASA-CASE-XLE-00376] c28 N70-37245

Electrostatic ion engine having a permanent magnetic circuit Patent
[NASA-CASE-XLE-01124] c28 N71-14043

Electrostatic ion rocket engine Patent
[NASA-CASE-XLE-02066] c28 N71-15661

Ion beam deflector Patent
[NASA-CASE-LEW-10689-1] c28 N71-26173

KAUFMAN, J. W.
Maximeters (peak wind speed anemometers)
[NASA-CASE-MPS-20916] c14 N73-25460

Wind wheel electric power generator
[NASA-CASE-MPS-23515-1] c44 N78-22469

KAUFMAN, W. B.
High current electrical lead
[NASA-CASE-LEW-10950-1] c33 N74-27683

KAUFMAN, J. J.
Lead-oxygen dc power supply system having a closed loop oxygen and water system
[NASA-CASE-MPS-23059-1] c44 N76-27664

KAVAYA, E. J.
Stark cell spectrophone with polarization modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392

KAZAROFF, J. E.
Heat exchanger and method of making
[NASA-CASE-LEW-12441-1] c34 N79-13289

A heat exchanger and method of making
[NASA-CASE-LEW-12441-2] c34 N79-21313

KAZNOFF, A. I.
Method of making a cermet Patent
[NASA-CASE-LEW-10219-1] c18 N71-28729

KAZOKAS, G. P.
Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612

KEAFER, L. S., JR.
Transmitting and reflecting diffuser
[NASA-CASE-LAR-10385-2] c70 N74-13436

Transmitting and reflecting diffuser
[NASA-CASE-LAR-10385-3] c74 N78-15879

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Mount for thermal control system Patent
[NASA-CASE-NPO-10138] c33 N71-16357
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Energy absorbing structure Patent Application
[NASA-CASE-MSC-12279-1] c15 N70-35679
Low onset rate energy absorber
[NASA-CASE-MSC-12279] c15 N72-17450
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Method and apparatus for attaching physiological
monitoring electrodes Patent
[NASA-CASE-MPR-07658-1] c05 N71-26293
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Phonocardiogram simulator Patent
[NASA-CASE-XKS-10804] c05 N71-24606
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Clear air turbulence detector Patent
[NASA-CASE-MPS-21244-1] c36 N75-15028
Focused laser Doppler velocimeter
[NASA-CASE-MPS-23178-1] c35 N77-10493
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A sodium storage and injection system
[NASA-CASE-NPO-14384-1] c25 N78-22187
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Parachute glider Patent
[NASA-CASE-XLA-00898] c02 N70-36804
Space and atmospheric reentry vehicle Patent
[NASA-CASE-IGS-00260] c31 N70-37924
Space capsule Patent
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Space capsule Patent
[NASA-CASE-XLA-01332] c31 N71-15664
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Automatic instrument for chemical processing to
detect microorganism in biological samples by
measuring light reactions
[NASA-CASE-GSC-11169-2] c05 N73-32011
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Heat exchanger
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Plural beam antenna
[NASA-CASE-GSC-11013-1] c09 N73-19234
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[NASA-CASE-XLA-06339] c02 N71-13422
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[NASA-CASE-LAR-12562-1] c08 N79-20135
A velocity vector control system augmented with
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[NASA-CASE-XAC-04458] c14 N71-24232
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[NASA-CASE-MNP-02263] c05 N74-10907
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Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613
Device for measuring the contour of a surface
[NASA-CASE-LAR-11869-1] c74 N78-27904
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Transient-compensated SCR inverter
[NASA-CASE-XLA-08507] c09 N69-39984
SCR blocking pulse gate amplifier Patent
[NASA-CASE-XLA-07497] c09 N71-12514
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Pneumatic mirror support system
[NASA-CASE-XLA-03271] c11 N69-24321
- KEMP, R. P.
Method and apparatus for measuring potentials in
plasmas Patent
[NASA-CASE-XLE-00821] c25 N71-15650
Apparatus for field strength measurement of a
space vehicle Patent
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Resolution enhanced sound detecting apparatus
[NASA-CASE-NPO-14134-1] c71 N78-19898
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purpose cone winding Patent
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Black body cavity radiometer Patent
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Reinforced structural plastics
[NASA-CASE-LEW-10199-1] c27 N74-23125
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Electrical connector Patent Application
[NASA-CASE-MPS-14741] c09 N70-20737
Filter system for control of outgas
contamination in vacuum Patent
[NASA-CASE-MPS-14711] c15 N71-26185
Method of making shielded flat cable Patent
[NASA-CASE-MPS-13687] c09 N71-28691
Shielded flat cable
[NASA-CASE-MPS-13687-2] c09 N72-22198
Polyimide resin-fiberglass cloth laminates for
printed circuit boards
[NASA-CASE-MPS-20408] c18 N73-12604
Integrated circuit package with lead structure
and method of preparing the same
[NASA-CASE-MPS-21374-1] c33 N74-12951
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Space suit
[NASA-CASE-MSC-12609-1] c05 N73-32012
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Geneva mechanism
[NASA-CASE-NPO-13281-1] c37 N75-13266
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Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761
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Flight craft Patent
[NASA-CASE-XAC-02058] c02 N71-16087
- KEPLER, C. E.
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Patent
[NASA-CASE-MPS-20831] c28 N71-29153
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Apparatus for vibrational testing of articles
[NASA-CASE-GSC-11302-1] c14 N73-13416
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[NASA-CASE-GSC-12399-1] c33 N79-13261
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Deformable vehicle wheel Patent
[NASA-CASE-MPS-20400] c31 N71-18611
- KERN, J. D.
Magnetic recording head and method of making
same Patent
[NASA-CASE-GSC-10097-1] c08 N71-27210
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Inherent redundancy electric heater
[NASA-CASE-MPS-21462-1] c33 N74-14935
- KERR, J. H.
Traffic survey system
[NASA-CASE-MPS-22631-1] c66 N76-19888
- KERSEY, E. D., JR.
Angular displacement indicating gas bearing
support system Patent
[NASA-CASE-XLA-09346] c15 N71-28740
- KESLAKE, W. E.
Ion thruster cathode
[NASA-CASE-XLE-07087] c06 N69-39889
Electronic cathode having a brush-like structure
and a relatively thick oxide emissive coating
Patent
[NASA-CASE-XLE-04501] c09 N71-23190
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Wrist joint assembly
[NASA-CASE-MPS-23311-1] c54 N78-17676
- KERWIN, W. J.
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[NASA-CASE-XAB-03786] c09 N69-21313
Demodulation system Patent
[NASA-CASE-XAC-04030] c10 N71-19472
Transducer circuit and catheter transducer Patent
[NASA-CASE-ARC-10132-1] c09 N71-24597
Active RC networks
[NASA-CASE-ARC-10042-2] c10 N72-11256
RC networks and amplifiers employing the same
[NASA-CASE-XAC-05462-2] c10 N72-17171
Active RC networks
[NASA-CASE-ARC-10020] c10 N72-17172

INVENTOR INDEX

KLEINBERG, L. L.

Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain
[NASA-CASE-ABC-10192] c09 N72-21245

Integrated structure vacuum tube
[NASA-CASE-ABC-10445-1] c31 N76-31365

KESSEL, J. E.
Plural recorder system
[NASA-CASE-XMS-06949] c09 N69-21467

KESSINGER, R. L.
Hearing aid malfunction detection system
[NASA-CASE-MSC-14916-1] c33 N78-10375

KEY, C. F.
Nonflammable coating compositions
[NASA-CASE-MFS-20486-2] c27 N74-17283

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[NASA-CASE-XLA-00937] c31 N71-17691

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Direct current transformer
[NASA-CASE-MFS-23659-1] c33 N79-17133

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Load cell protection device Patent
[NASA-CASE-XMS-06782] c32 N71-15974

KICHAN, R. A.
Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333

KIEFER, P. J., JR.
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[NASA-CASE-XMS-02087] c09 N70-41717

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Multiducted electromagnetic pump Patent
[NASA-CASE-NPO-10755] c15 N71-27084

Shell side liquid metal boiler
[NASA-CASE-NPO-10831] c33 N72-20915

KILLALEA, W. P.
Clamping assembly for inertial components Patent
[NASA-CASE-XMS-02184] c15 N71-20813

KIM, C.
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[NASA-CASE-GSC-11531-1] c52 N74-27566

KIM, H. H.
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[NASA-CASE-ERC-10044-1] c14 N71-27090

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[NASA-CASE-NPO-14298-1] c76 N79-10917

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[NASA-CASE-LAR-10630-1] c37 N74-18123

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Micrometeoroid velocity measuring device Patent
[NASA-CASE-XLA-00495] c14 N70-41332

Micrometeoroid penetration measuring device Patent
[NASA-CASE-XLA-00941] c14 N71-23240

Deployable pressurized cell structure for a micrometeoroid detector
[NASA-CASE-LAR-10295-1] c35 N74-21062

Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

KINELL, D. K.
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KING, C. B.
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[NASA-CASE-XLA-01353] c14 N70-41366

Method and apparatus for bonding a plastics sleeve onto a metallic body Patent
[NASA-CASE-XLA-01262] c15 N71-21404

Dielectric molding apparatus Patent
[NASA-CASE-LAR-10121-1] c15 N71-26721

Butt welder for fine gauge tungsten/rhenium thermocouple wire
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KING, H. J.
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[NASA-CASE-NPO-10298] c12 N71-17661

KING, H. B.
Method of making impurity-type semiconductor electrical contacts Patent
[NASA-CASE-XNF-01016] c26 N71-17818

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[NASA-CASE-MFS-23506-1] c24 N78-24290

KING, R. B.
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[NASA-CASE-LEW-10794-1] c06 N72-17093

KING, R. F.
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[NASA-CASE-ABC-10756-1] c54 N77-32721

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Method and apparatus for making a heat insulating and ablative structure Patent
[NASA-CASE-XMS-02009] c33 N71-20834

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Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942

KINKEL, J. F.
Data transfer system Patent
[NASA-CASE-NPO-12107] c08 N71-27255

KINHARD, K. F.
Laser Doppler system for measuring three dimensional vector velocity Patent
[NASA-CASE-MFS-20386] c21 N71-19212

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[NASA-CASE-HQN-10069] c33 N75-27251

KINSEL, R. C.
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[NASA-CASE-IGS-01110] c07 N69-24334

KINZLER, J. A.
Emergency escape system Patent
[NASA-CASE-MSC-12086-1] c05 N71-12345

Surface finishing
[NASA-CASE-MSC-12631-1] c24 N77-28225

Structural members, method and apparatus
[NASA-CASE-MSC-16217-1] c18 N78-22146

Surface finishing
[NASA-CASE-MSC-12631-3] c26 N79-21183

KIRBY, C. A.
Translatory shock absorber for attitude sensors
[NASA-CASE-MFS-22905-1] c19 N76-22284

KIRCHMAN, E. J.
Accelerometer with FM output Patent
[NASA-CASE-XLA-00492] c14 N70-34799

KIRSTEN, C. C.
Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

KIS, G.
Optical alignment system Patent
[NASA-CASE-XNP-02029] c14 N70-41955

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Tetherline system for orbiting satellites
[NASA-CASE-MFS-23564-1] c15 N78-25119

KISSELL, R. R.
Ratemeter
[NASA-CASE-MFS-20418] c14 N73-24473

KISZKO, W.
Portable superclean air column device Patent
[NASA-CASE-XNF-03212] c15 N71-22721

KITTS, W. T.
Cryogenic connector for vacuum use Patent
[NASA-CASE-IGS-02441] c15 N70-41629

KLECHKE, E. W.
Nickel aluminate coated low alloy stainless steel
[NASA-CASE-LEW-11267-1] c17 N73-32414

KLEIN, E. L.
Apparatus for inspecting microfilm Patent
[NASA-CASE-MFS-20240] c14 N71-26788

KLEIN, H. G.
Electrolytically regenerative hydrogen-oxygen fuel cell Patent
[NASA-CASE-XLE-04526] c03 N71-11052

KLEINBERG, L. L.
Stable amplifier having a stable quiescent point Patent
[NASA-CASE-IGS-02812] c09 N71-19466

Complementary regenerative switch Patent
[NASA-CASE-IGS-02751] c09 N71-23015

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[NASA-CASE-GSC-10082-1] c10 N72-20221

Active tuned circuit
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Ultra-stable oscillator with complementary transistors
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KLEINROCK, L.
Data compression system
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Method and apparatus for data compression by a
decreasing slope threshold test
[NASA-CASE-NPO-10769] c08 N72-11171

KLINA, S. J.
High temperature cobalt-base alloy Patent
[NASA-CASE-XLE-00726] c17 N71-15644

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Capacitance multiplier and filter synthesizing
network
[NASA-CASE-NPO-11948-1] c33 N74-32712
Versatile transponder receiver
[NASA-CASE-NPO-14248-1] c32 N78-24402

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Automatic frequency discriminators and control
for a phase-lock loop providing frequency
preset capabilities Patent
[NASA-CASE-XMF-08665] c10 N71-19467

KLINGMAN, E. E., III
Apparatus for calibrating an image dissector tube
[NASA-CASE-NFS-22208-1] c33 N75-26244
Electronic optical transfer function analyzer
[NASA-CASE-NFS-21672-1] c74 N76-19935

KLISCH, J. A.
Combustion products generating and metering device
[NASA-CASE-GSC-11095-1] c14 N72-10375

KLOC, I.
Penetrometer
[NASA-CASE-NPO-11103] c14 N72-21406
Penetrometer
[NASA-CASE-NPO-11103-1] c35 N77-27367

KNAUER, W.
Ion thruster
[NASA-CASE-LEW-10770-1] c28 N72-22770

KNECHTEL, E. D.
Two force component measuring device Patent
[NASA-CASE-XAC-04886-1] c14 N71-20439
Floating two force component measuring device
Patent
[NASA-CASE-XAC-04885] c14 N71-23790

KNOELL, A. C.
Method of adhering bone to a rigid substrate
using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215
Vehicular impact absorption system
[NASA-CASE-NPO-14014-1] c37 N79-10420

KNOOS, S. P.
Shock tube bypass piston tunnel
[NASA-CASE-NPO-12109] c11 N72-22245

KOBAYASHI, H. S.
Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12462-1] c32 N74-20809
Pulse code modulated signal synchronizer
[NASA-CASE-MSC-12494-1] c32 N74-20810
Receiving and tracking phase modulated signals
[NASA-CASE-MSC-16170-1] c32 N77-12248

KOBAYASHI, H. S.
Bit error rate measurement above and below bit
rate tracking threshold
[NASA-CASE-MSC-12743-1] c32 N79-10263

KOCH, E. P.
Expulsion bladder-equipped storage tank
structure Patent
[NASA-CASE-INP-00612] c11 N70-38182
Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050

KOCH, K. P.
CRT blanking and brightness control circuit
[NASA-CASE-KSC-10647-1] c10 N72-31273

KOCZELA, L. J.
Adaptive voting computer system
[NASA-CASE-MSC-13932-1] c62 N74-14920

KODIS, R. D.
Clear air turbulence detector
[NASA-CASE-ERC-10081] c14 N72-28437

KOEPP, G. A.
A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445

KOJIMA, G. K.
Miniature implantable ultrasonic echosonometer
[NASA-CASE-ARC-11035-1] c52 N79-18580

KOLBY, B. B.
High power microwave power divider Patent
[NASA-CASE-NPO-11031] c07 N71-33606
System for controlling the operation of a
variable signal device
[NASA-CASE-NPO-11064] c07 N72-11150

KOLBY, B. B.
Direct reading inductance meter
[NASA-CASE-NPO-13792-1] c35 N77-32455

KOLOBOFF, G. J.
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860

KOLSTEE, H. E.
Radiator deployment actuator Patent
[NASA-CASE-MSC-11817-1] c15 N71-26611

KONIGSBERG, E.
Accelerometer telemetry system
[NASA-CASE-ARC-10849-1] c17 N76-29347

KOPELSON, S.
Rate augmented digital to analog converter Patent
[NASA-CASE-ILA-07828] c08 N71-27057

KOPETSKI, P. J.
Ring counter
[NASA-CASE-XGS-03095] c09 N69-27463

KOPIA, L. P.
Transmitting and reflecting diffuser
[NASA-CASE-LAR-10385-2] c70 N74-13436
Transmitting and reflecting diffuser
[NASA-CASE-LAR-10385-3] c74 N78-15879

KORABOWSKI, J. J.
Pressure garment joint Patent
[NASA-CASE-XMS-09636] c05 N71-12344
Method of forming a root cord restrained
convolute section
[NASA-CASE-MSC-12398] c05 N72-20098

KORDES, E. E.
High intensity heat and light unit Patent
[NASA-CASE-ILA-00141] c09 N70-33312

KORNFELD, D. E.
Process for preparation of large-particle size
monodisperse latexes
[NASA-CASE-NFS-25000-1] c25 N79-14171

KORSCH, D. G.
Anastigmatic three-mirror telescope
[NASA-CASE-NFS-23675-1] c89 N79-10969

KORVIN, W.
Self-erecting reflector Patent
[NASA-CASE-XGS-09190] c31 N71-16102
Tracking antenna system Patent
[NASA-CASE-GSC-10553-1] c07 N71-19854
Antenna array at focal plane of reflector with
coupling network for beam switching Patent
[NASA-CASE-GSC-10220-1] c07 N71-27233

KOSCHIEDER, L. A.
Bi-polar phase detector and corrector for split
phase PCM data signals Patent
[NASA-CASE-XGS-01590] c07 N71-12392

KOSHANLI, H. G.
Linear magnetic brake with two windings Patent
[NASA-CASE-XLE-05079] c15 N71-17652
Electrostatic collector for charged particles
[NASA-CASE-LEW-11192-1] c09 N73-13208
Electron beam controller
[NASA-CASE-LEW-11617-1] c33 N74-10195

KOSMO, J. J.
Extravehicular tunnel suit system Patent
[NASA-CASE-MSC-12243-1] c05 N71-24728

KOTHE, E.
Helmet feedport
[NASA-CASE-XMS-09653] c54 N78-17680

KOURTIDES, D. A.
Low density bismaleimide-carbon microballoon
composites
[NASA-CASE-ARC-11040-2] c24 N78-27184
Low density bismaleimide-carbon microballoon
composites
[NASA-CASE-ARC-11040-1] c24 N79-16915

KOVELL, S. P.
Method for etching copper Patent
[NASA-CASE-XGS-06306] c17 N71-16044

KOBAYASHI, H. S.
Unbalanced quadriphase demodulator
[NASA-CASE-MSC-14840-1] c32 N77-24331

KOZIOL, J. S., JR.
Aircraft control system
[NASA-CASE-ERC-10439] c02 N73-19004

KRAMER, F.
Device for suppressing sound and heat produced
by high-velocity exhaust jets Patent
[NASA-CASE-XNP-01813] c28 N70-41582

KRAMER, J. S.
Apparatus for determining thermophysical
properties of test specimens
[NASA-CASE-LAR-11883-1] c09 N77-27131

INVENTOR INDEX

KUSHIDA, R. O.

KRAMER, M.
 Electronic amplifier with power supply switching Patent
 [NASA-CASE-XMS-00945] c09 N71-10798
 Power supply Patent
 [NASA-CASE-XMS-02159] c10 N71-22961

KRASIN, F. E.
 Discriminator aided phase lock acquisition for suppressed carrier signals
 [NASA-CASE-NPO-14311-1] c32 N79-14276

KRAUSE, F. R.
 Passive optical wind and turbulence detection system Patent
 [NASA-CASE-XMP-14032] c20 N71-16340

KRAUSE, I. A.
 Satellite interlace synchronization system
 [NASA-CASE-GSC-10390-1] c07 N72-11149

KRAUSE, L. W.
 Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent
 [NASA-CASE-XLE-00266] c14 N70-34156
 Sensing probe
 [NASA-CASE-LEW-10281-1] c14 N72-17327

KRAUSE, H. C.
 Focused laser Doppler velocimeter
 [NASA-CASE-MFS-23178-1] c35 N77-10493
 Wind measurement system
 [NASA-CASE-MFS-23362-1] c47 N77-10753

KRAUSE, S. J.
 Method and device for determining battery state of charge Patent
 [NASA-CASE-NPO-10194] c03 N71-20407

KRAUSHAAR, W. L.
 Coaxial anode wire for gas radiation counters
 [NASA-CASE-GSC-11492-1] c35 N74-26949

KRAY, W. P.
 Synthesis of multifunction triaryltrifluoroethanes
 [NASA-CASE-ARC-11097-1] c23 N78-22154
 Synthesis of multifunction triaryltrifluoroethanes
 [NASA-CASE-ARC-11097-2] c23 N78-22155

KREISMAN, W. S.
 Inflation system for balloon type satellites Patent
 [NASA-CASE-XGS-03351] c31 N71-16081

KRIEVE, W. F.
 High-voltage cable Patent
 [NASA-CASE-XNP-00738] c09 N70-38201

KROPP, C. J.
 Determination of spot weld quality Patent
 [NASA-CASE-XNP-02588] c15 N71-18613

KRSEK, A. J.
 Optical torque meter Patent
 [NASA-CASE-XLE-00503] c14 N70-34818

KRUPNICK, A. C.
 Method for detecting hydrogen gas
 [NASA-CASE-XMP-03873] c06 N69-39733
 Inorganic thermal control coatings
 [NASA-CASE-MFS-20011] c18 N72-22566
 Nonflammable coating compositions
 [NASA-CASE-MFS-20486-2] c27 N74-17283
 Stainless steel panel for selective absorption of solar energy and the method of producing said panel
 [NASA-CASE-MFS-23518-2] c44 N77-31611
 Stainless steel panel for selective absorption of solar energy and the method of producing said panel
 [NASA-CASE-MFS-23518-3] c44 N78-25557
 Method for making an aluminum or copper substrate panel for selective absorption of solar energy
 [NASA-CASE-MFS-23518-1] c44 N79-11469

KUBACKI, R. E.
 Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge
 [NASA-CASE-ARC-11057-1] c27 N78-31233
 Process for producing a well-adhered durable optical coating on an optical plastic substrate
 [NASA-CASE-ARC-11039-1] c74 N78-32854

KUBICA, A. J.
 Decomposition unit Patent
 [NASA-CASE-XMS-00583] c28 N70-38504

KUBICZ, A. P.
 Signal path series step biased multidevice high efficiency amplifier Patent
 [NASA-CASE-GSC-10668-1] c07 N71-28430

Power responsive overload sensing circuit Patent
 [NASA-CASE-GSC-10667-1] c10 N71-33129
 Infinite range electronics gain control circuit
 [NASA-CASE-GSC-10786-1] c10 N72-28241

KUBIK, C. F.
 Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent
 [NASA-CASE-XNP-01310] c33 N71-28852

KUBIK, J. S.
 Device for preventing high voltage arcing in electron beam welding Patent
 [NASA-CASE-XMP-08522] c15 N71-19486

KUBOKAWA, C. C.
 Fastener apparatus Patent
 [NASA-CASE-ABC-10140-1] c15 N71-17653

KUEBLER, M. E.
 Method and means for damping nutation in a satellite Patent
 [NASA-CASE-XMP-00442] c31 N71-10747

KUENZLY, J. D.
 Low thrust monopropellant engine
 [NASA-CASE-GSC-12194-2] c20 N79-15151

KUGATH, D. A.
 Remote manipulator system
 [NASA-CASE-MFS-22022-1] c37 N76-15460

KUHN, R. E.
 Quiet jet transport aircraft
 [NASA-CASE-LAR-11087-1] c02 N73-26008

KUHN, R. F., JR.
 Universal restrainer and joint Patent
 [NASA-CASE-XNP-02278] c15 N71-28951
 Internally supported flexible duct joint
 [NASA-CASE-MFS-19193-1] c37 N75-19686

KUHS, P. W.
 Generator for a space power system Patent
 [NASA-CASE-XLE-04250] c09 N71-20446

KUPPERIAN, J. E., JR.
 Low friction magnetic recording tape Patent
 [NASA-CASE-XGS-00373] c23 N71-15978

FURAL, M. H.
 Strain arrestor plate for fused silica tile
 [NASA-CASE-MSC-14182-1] c27 N76-14264

KURIGER, W. L.
 Short range laser obstacle detector
 [NASA-CASE-NPO-11856-1] c36 N74-15145

KURPLE, W.
 Bit error rate measurement above and below bit rate tracking threshold
 [NASA-CASE-MSC-12743-1] c32 N79-10263

KURTZ, R. L.
 Hybrid holographic system using reflected and transmitted object beams simultaneously Patent
 [NASA-CASE-MFS-20074] c16 N71-15565
 Multiple image storing system for high speed projectile holography
 [NASA-CASE-MFS-20596] c14 N72-17324
 Real time moving scene holographic camera system
 [NASA-CASE-MFS-21087-1] c35 N74-17153
 Holographic system for nondestructive testing
 [NASA-CASE-MFS-21704-1] c35 N75-25124
 Real time, large volume, moving scene holographic camera system
 [NASA-CASE-MFS-22537-1] c35 N75-27328
 Holographic motion picture camera with Doppler shift compensation
 [NASA-CASE-MFS-22517-1] c35 N76-18402
 Projection system for display of parallax and perspective
 [NASA-CASE-MFS-23194-1] c35 N78-17357
 Hybrid holographic non-destructive test system
 [NASA-CASE-MFS-23114-1] c38 N78-32447

KURVIN, C. W.
 Remote platform power conserving system
 [NASA-CASE-GSC-11182-1] c15 N75-13007

KURYLO, H. J., III
 Ultraviolet atomic emission detector
 [NASA-CASE-HQN-10756-1] c14 N72-25428

KURZHALS, P. R.
 Spacecraft experiment pointing and attitude control system Patent
 [NASA-CASE-XLA-05464] c21 N71-14132
 Attitude control and damping system for spacecraft Patent
 [NASA-CASE-XLA-02551] c21 N71-21708

KUSHIDA, R. O.
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-1] c37 N76-16446

- Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700
- L**
- LA RUSSA, P. J.
Array phasing device Patent
[NASA-CASE-ERC-10046] c10 N71-18722
- LA VIGNA, T. A.
Buck boost voltage regulation circuit Patent
[NASA-CASE-GSC-10735-1] c10 N71-26085
- LACHRY, R. E.
Infusible silazane polymer and process for
producing same
[NASA-CASE-INP-02526-1] c27 N79-21190
- LACKNER, H. G.
Method and apparatus of simulating zero gravity
conditions Patent
[NASA-CASE-MPS-12750] c27 N71-16223
Method and apparatus for checking the stability
of a setup for making reflection type holograms
[NASA-CASE-MPS-21455-1] c35 N74-15146
- LAIACONA, F. P.
Bonding of reinforced Teflon to metals
[NASA-CASE-MPS-20482] c15 N72-22492
Method of preparing graphite reinforced aluminum
composite
[NASA-CASE-MPS-21077-1] c24 N75-28135
- LAINE, D. D.
Electromechanical actuator
[NASA-CASE-INP-05975] c15 N69-23185
- LAHAR, J. E.
Vortex-lift roll-control device
[NASA-CASE-LAR-11868-2] c08 N79-14108
- LAMB, R. H.
Hypersonic reentry vehicle Patent
[NASA-CASE-INS-04142] c31 N70-41631
- LAMPERT, H. H.
Bismuth-lead coatings for gas bearings used in
atmospheric environments and vacuum chambers
Patent
[NASA-CASE-IGS-02011] c15 N71-20739
- LAMPSON, H. L.
Resistive anode image converter
[NASA-CASE-HQN-10876-1] c33 N76-27473
- LANDAUER, P. P.
Means for generating a sync signal in an FM
communication system Patent
[NASA-CASE-INP-10830] c07 N71-11281
- LANDAUER, P. P., JR.
Multispectral imaging and analysis system
[NASA-CASE-NPO-13691-1] c43 N79-17288
- LANDEL, R. F.
Method for controlling vapor content of a gas
[NASA-CASE-NPO-10633] c03 N72-28025
Parallel-plate viscometer with double diaphragm
suspension
[NASA-CASE-NPO-11387] c14 N73-14429
Preparation of alkali metal dispersions
[NASA-CASE-INP-08876] c17 N73-28573
- LANDIS, H. S.
Active microwave irises and windows
[NASA-CASE-LAR-10513-1] c07 N72-25170
Thin film microwave iris
[NASA-CASE-LAR-10511-1] c09 N72-29172
- LANE, J. W.
Wide range dynamic pressure sensor
[NASA-CASE-ABC-10263-1] c14 N72-22438
- LAWRY, C. C., JR.
Micrometeoroid velocity measuring device Patent
[NASA-CASE-XLA-00495] c14 N70-41332
Micrometeoroid penetration measuring device Patent
[NASA-CASE-XLA-00941] c14 N71-23240
- LAWFORD, W. E.
Folding apparatus Patent
[NASA-CASE-XLA-00137] c15 N70-33180
Reflector space satellite Patent
[NASA-CASE-XLA-00138] c31 N70-37981
- LANG, R.
Venting device for pressurized space suit helmet
Patent
[NASA-CASE-INS-09652-1] c05 N71-26333
Protective garment ventilation system
[NASA-CASE-INS-04928] c54 N78-17679
Protective garment ventilation system
[NASA-CASE-INS-04928-1] c54 N79-21765
- LANGSTON, O. H.
Continuous detonation reaction engine Patent
[NASA-CASE-INP-06926] c28 N71-22983
- LANGSE, R. A.
Wideband heterodyne receiver for laser
communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346
- LANGMUIR, R. V.
Quadrupole mass filter with means to generate a
noise spectrum exclusive of the resonant
frequency of the desired ions to deflect
stable ions
[NASA-CASE-INP-04231] c14 N73-32325
- LAUSING, J. C., JR.
Method and apparatus for optically monitoring
the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304
- LAUTZ, E.
Gaseous control system for nuclear reactors
[NASA-CASE-XLE-04599] c22 N72-20597
- LAZO, C. D.
Simulated fuel assembly Patent
[NASA-CASE-XLE-00724] c14 N70-34669
- LAKE, R. F.
Hybrid composite laminate structures
[NASA-CASE-LEW-12118-1] c24 N77-27188
- LARBER, J. W.
Conforming polisher for aspheric surface of
revolution Patent
[NASA-CASE-XGS-02884] c15 N71-22705
- LARSON, L. L.
Coaxial injector for reaction motors
[NASA-CASE-NPO-11095] c15 N72-25455
- LARSON, T. P.
Filter regeneration systems
[NASA-CASE-HSC-14273-1] c34 N75-33342
- LATHAN, E. A.
The engine air intake system
[NASA-CASE-ABC-10761-1] c07 N77-18154
- LATTO, W. T., JR.
Small rocket engine Patent
[NASA-CASE-XLE-00685] c28 N70-41992
- LAUB, J. H.
Attitude control for spacecraft Patent
[NASA-CASE-INP-00294] c21 N70-36938
Slit regulated gas journal bearing Patent
[NASA-CASE-INP-00476] c15 N70-38620
- LAUDENSLAGER, J. B.
Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336
- LAUDERDALE, W. R.
Method and apparatus for securing to a
spacecraft Patent
[NASA-CASE-MPS-11133] c31 N71-16222
- LAUDENSLAGER, J. B.
Charge transfer reaction laser with
preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402
- LAUB, E. G.
Irradiance measuring device
[NASA-CASE-NPO-11493] c14 N73-12447
Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524
Passive intrusion detection system
[NASA-CASE-NPO-13804-1] c35 N77-19390
- LAUB, H. H.
Driving lamps by induction
[NASA-CASE-MPS-21214-1] c09 N73-30181
- LAUB, J. H.
Multi-mission module Patent
[NASA-CASE-INP-01543] c31 N71-17730
- LAUGHLIN, C. B., JR.
Position location system and method Patent
[NASA-CASE-GSC-10087-2] c21 N71-13958
Position location and data collection system and
method Patent
[NASA-CASE-GSC-10083-1] c30 N71-16090
Traffic control system and method Patent
[NASA-CASE-GSC-10087-1] c02 N71-19287
Diversity receiving system with diversity phase
lock Patent
[NASA-CASE-XGS-01222] c10 N71-20841
Position location system and method
[NASA-CASE-GSC-10087-3] c07 N72-12080
Doppler compensation by shifting transmitted
object frequency within limits
[NASA-CASE-GSC-10087-4] c07 N73-20174
- LAUSAN, E. A.
Hydrogen-fueled engine
[NASA-CASE-NPO-13763-1] c44 N78-33526
- LAUBENBER, J. C.
Method of fabricating a twisted composite

INVENTOR INDEX

LEISS, A.

superconductor
[NASA-CASE-LEW-11015] c26 N73-32571

LAURIE, E. O.
Adjustable mount for a trihedral mirror Patent
[NASA-CASE-XNP-08907] c23 N71-29123

LAVERNE, R. C.
Position location and data collection system and
method Patent
[NASA-CASE-GSC-10083-1] c30 N71-16090

LAWHITE, E.
Drying apparatus for photographic sheet material
[NASA-CASE-GSC-11074-1] c14 N73-28489

LAWING, P. L.
Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168

LAWRENCE, E. D.
Variable frequency oscillator with temperature
compensation Patent
[NASA-CASE-XNP-03916] c09 N71-28810

LAWRENCE, T. R.
Focused laser Doppler velocimeter
[NASA-CASE-HFS-23178-1] c35 N77-10493
Wind measurement system
[NASA-CASE-HFS-23362-1] c47 N77-10753

LAWSON, A. G.
Electrical resistance spot welding and brazing
techniques for metal bonding
[NASA-CASE-LAR-11072-1] c15 N73-20535

LAWSON, B. D.
Assembly for recovering a capsule Patent
[NASA-CASE-XNP-00641] c31 N70-36410
Space capsule ejection assembly Patent
[NASA-CASE-XNP-03169] c31 N71-15675
Mount for continuously orienting a collector
dish in a system adapted to perform both
diurnal and seasonal solar tracking
[NASA-CASE-HFS-23267-1] c35 N77-20401

LAWSON, D. D.
Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N77-28470
Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N78-25391
Dual membrane hollow fiber fuel cell and method
of operating same
[NASA-CASE-NPO-13732-1] c44 N79-10513

LAYLAND, J. W.
Communications link for computers
[NASA-CASE-NPO-11161] c08 N72-25207
Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267

LE BEL, P. J.
Ablation sensor Patent
[NASA-CASE-XLA-01794] c33 N71-21586

LE DOUX, P. E.
Bacteriostatic conformal coating and methods of
application Patent
[NASA-CASE-GSC-10007] c18 N71-16046

LE VAY, K. H.
Holder for crystal resonators Patent
[NASA-CASE-XNP-03637] c15 N71-21311

LEATHERWOOD, J. D.
Active vibration isolator for flexible bodies
Patent
[NASA-CASE-LAR-10106-1] c15 N71-27169
Active air cushion control system minimizing
vertical cushion response
[NASA-CASE-LAR-10531-1] c02 N73-13023

LEAVY, W. A.
Switching mechanism with energy storage means
Patent
[NASA-CASE-XGS-00473] c03 N70-38713
Antenna deployment mechanism
[NASA-CASE-GSC-12331-1] c37 N78-32436

LEE, C. E.
Trigonometric vehicle guidance assembly which
aligns the three perpendicular axes of two
three-axes systems Patent
[NASA-CASE-XNP-00684] c21 N71-21688

LEE, D. A.
Hermetically sealed explosive release mechanism
Patent
[NASA-CASE-XGS-00824] c15 N71-16078

LEE, D. H.
Ignition means for monopropellant Patent
[NASA-CASE-XNP-00876] c28 N70-41311

LEE, J. S.
High voltage transistor circuit Patent
[NASA-CASE-XNP-06937] c09 N71-19516

LEE, M. C.
Dual resonant cavity absorption cell Patent
[NASA-CASE-LAR-10305] c14 N71-26137

LEE, R. D.
Telemetry actuated switch
[NASA-CASE-ARC-10105] c09 N72-17153
Metallic intrusion detector system
[NASA-CASE-ARC-10265-1] c10 N72-28240
Intruder detection system
[NASA-CASE-ARC-10097-2] c07 N73-25160
Ultrasonic biomedical measuring and recording
apparatus
[NASA-CASE-ARC-10597-1] c52 N74-20726
Bio-isolated dc operational amplifier
[NASA-CASE-ARC-10596-1] c33 N74-21851
Reference apparatus for medical ultrasonic
transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760
Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835
ERK and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619

LEE, S. H.
Method and apparatus for producing an image from
a transparent object
[NASA-CASE-GSC-11989-1] c74 N77-28932

LEE, S. Y.
Physical correction filter for improving the
optical quality of an image
[NASA-CASE-HQN-10542-1] c74 N75-25706

LEE, W. S.
Surface finishing
[NASA-CASE-MSC-12631-1] c24 N77-28225
Surface finishing
[NASA-CASE-MSC-12631-3] c26 N79-21183

LEEB, W. R.
Method and apparatus for splitting a beam of
energy
[NASA-CASE-GSC-12083-1] c73 N78-32848

LEEPER, W. A.
High efficiency multifrequency feed
[NASA-CASE-GSC-11909] c32 N74-20863

LEES, W. L.
Field ionization electrodes Patent
[NASA-CASE-ERC-10013] c09 N71-26678
Method and apparatus for limiting field emission
current
[NASA-CASE-ERC-10015-2] c10 N72-27246

LEFKKE, W. O.
Flexibly connected support and skin Patent
[NASA-CASE-XLA-01027] c31 N71-24035

LEFTWICH, R. P.
Multi-lobar scan horizon sensor Patent
[NASA-CASE-XGS-00809] c21 N70-35427

LEGER, L.
Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671

LEGER, L. J.
Method and device for detection of surface
discontinuities or defects
[NASA-CASE-MSC-14187-1] c35 N74-32879
Thermal insulation attaching means
[NASA-CASE-MSC-12619-2] c27 N79-12221

LEHMANN, E. W.
Fluid thrust control system
[NASA-CASE-XNP-05964-1] c20 N79-21124

LEIBCKI, H. P.
Electrically conductive fluorocarbon polymer
[NASA-CASE-XLE-06774-2] c06 N72-25150

LEIBERT, C. H.
Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355

LEIBOWITZ, L. P.
Annular arc accelerator shock tube
[NASA-CASE-NPO-13528-1] c09 N77-10071

LEIPOLD, H. H.
Method of controlling defect orientation in
silicon crystal ribbon growth
[NASA-CASE-NPO-13918-1] c76 N79-11920

LEISER, D. B.
Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376
Fibrous refractory composite insulation
[NASA-CASE-ARC-11169-1] c24 N78-32189
Reaction cured glass and glass coatings
[NASA-CASE-ARC-11051-1] c27 N78-32260

LEISS, A.
Air frame drag balance Patent
[NASA-CASE-XLA-00113] c14 N70-33386

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Attaching of strain gages to substrates
[NASA-CASE-FRC-10093-1] c35 N78-18393
- LEBOS, P. R.
Metallic hot wire anemometer
[NASA-CASE-ARC-10911-1] c35 N77-20400
- LEBSON, P. H.
Broadband modified turnstile antenna Patent
[NASA-CASE-MSC-12209] c09 N71-24842
- LEWETT, S. D.
Receiving and tracking phase modulated signals
[NASA-CASE-MSC-16170-1] c32 N77-12248
- LEWIS, C. L.
Remote lightning monitor system
[NASA-CASE-KSC-11031-1] c33 N79-11315
- LEWY, W. E.
Method for fiberizing ceramic materials Patent
[NASA-CASE-XP-00597] c18 N71-23088
- LEWY, H. A.
Stirring apparatus for plural test tubes Patent
[NASA-CASE-IAC-06956] c15 N71-21177
- Automatic real-time pair-feeding system for animals
[NASA-CASE-ARC-10302-1] c51 N74-15778
- LEWYARD, E. T.
Alignment apparatus using a laser having a gravitationally sensitive cavity reflector
[NASA-CASE-ARC-10444-1] c16 N73-33397
- LEPP, D. R.
Phototropic composition of matter
[NASA-CASE-XGS-03736] c14 N72-22443
- LEBNA, G.
Insulation for piping
[NASA-CASE-MSC-19523-1] c31 N76-16245
- LEWYER, T.
Modulator for tone and binary signals
[NASA-CASE-GSC-11743-1] c32 N75-24981
- LESH, J. R.
Multiple rate digital command detection system with range clean-up capability
[NASA-CASE-NPO-13753-1] c32 N77-20289
- LESKO, J. G., JR.
Programmable telemetry system Patent
[NASA-CASE-GSC-10131-1] c07 N71-24624
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[NASA-CASE-GSC-10186] c08 N71-33110
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[NASA-CASE-GSC-10975-1] c08 N73-13187
- LESSLEY, R. L.
Rotating shaft seal Patent
[NASA-CASE-XP-02862-1] c15 N71-26294
- LESSMAN, G. G.
Bimetallic junctions
[NASA-CASE-LEW-11573-1] c26 N77-28265
- LEVIN, H.
Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-MPS-22324-1] c27 N75-27160
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Lunar landing flight research vehicle Patent
[NASA-CASE-XP-00929] c31 N70-34966
- LEVINE, H. W.
Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency
[NASA-CASE-HQN-10654-1] c16 N73-13489
- Tunable cavity resonator with ramp shaped supports
[NASA-CASE-HQN-10790-1] c36 N74-11313
- LEVINE, S. R.
Fused silicide coatings containing discrete particles for protecting niobium alloys
[NASA-CASE-LEW-11179-1] c27 N76-16229
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Conforming polisher for aspheric surface of revolution Patent
[NASA-CASE-XGS-02884] c15 N71-22705
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Distributed-switch dicke radiometer
[NASA-CASE-GSC-12219-1] c43 N78-22436
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Multi-feed cone Cassegrain antenna Patent
[NASA-CASE-NPO-10539] c07 N71-11285
- LEWICKI, G. W.
High voltage transistor amplifier with constant current load
[NASA-CASE-NPO-11023] c09 N72-17155
- Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control
[NASA-CASE-NPO-11317-2] c36 N74-13205
- Use of thin film light detector
[NASA-CASE-NPO-11432-2] c35 N74-15090
- Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331
- Magneto-optic detection system with noise cancellation
[NASA-CASE-NPO-11954-1] c35 N78-29421
- Thermomagnetic recording and magnetic-optic playback system
[NASA-CASE-NPO-10872-1] c35 N79-16246
- Manganese bismuth films with narrow transfer characteristics for Curie-point switching
[NASA-CASE-NPO-11336-1] c76 N79-16678
- LEWIS, B. P.
Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429
- LEWIS, B. W.
Process for applying black coating to metals Patent
[NASA-CASE-XLA-06199] c15 N71-24875
- Barium release system
[NASA-CASE-LAR-10670-1] c06 N73-30097
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[NASA-CASE-LAR-10670-2] c15 N74-27360
- LEWIS, D. J.
Mandrel for shaping solid propellant rocket fuel into a motor casing Patent
[NASA-CASE-XLA-00304] c27 N70-34783
- Solid propellant rocket motor and method of making same
[NASA-CASE-XLA-1349] c20 N77-17143
- LEWIS, G. W.
Subminiature insertable force transducer
[NASA-CASE-NPO-13423-1] c33 N75-31329
- Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338
- Myocardium wall thickness transducer and measuring method
[NASA-CASE-NPO-13644-1] c52 N76-29895
- Catheter tip force transducer for cardiovascular research
[NASA-CASE-NPO-13643-1] c52 N76-29896
- LEWIS, J. E.
Automatic transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
- LEWIS, R.
High temperature ferromagnetic cobalt-base alloy Patent
[NASA-CASE-XLE-03629] c17 N71-23248
- LEWIS, T. L.
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[NASA-CASE-FRC-10060-1] c14 N73-27379
- LEWY, L. L.
Analog-to-digital converter
[NASA-CASE-XP-00477] c08 N73-28045
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Flexible wing deployment device Patent
[NASA-CASE-XLA-01220] c02 N70-41863
- LIBBY, J. W.
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819
- Reversible ring counter employing cascaded single SCR stages Patent
[NASA-CASE-XGS-01473] c09 N71-10673
- LIBBY, W. F.
Continuous plasma light source
[NASA-CASE-XP-04167-2] c25 N72-24753
- Continuous plasma laser
[NASA-CASE-XP-04167-3] c36 N77-19416
- LIBEROTTI, J.
Valving device for automatic refilling in cryogenic liquid systems
[NASA-CASE-NPO-11177] c15 N72-17453
- LIEBERMAN, S.
Resonant infrasonic gauging apparatus
[NASA-CASE-MSC-11847-1] c14 N72-11363
- LIGHT, D. J.
Fixture for supporting articles during vibration tests

INVENTOR INDEX

LOHR, J. J.

[NASA-CASE-NFS-20523] c14 N72-27412
LIGHTSEY, G. E.
 Preparation of polyimides from mixtures of monomeric diamines and esters of polycarboxylic acids
 [NASA-CASE-LEW-11325-1] c06 N73-27980

LILLEY, A. E.
 Clear air turbulence detector
 [NASA-CASE-ERC-10081] c14 N72-28437

LIN, L. Y.
 Signal processing apparatus for multiplex transmission Patent
 [NASA-CASE-NPO-10388] c07 N71-24622

LIN, R. Y.
 Ceramic fiber insulating material and methods of producing same
 [NASA-CASE-HSC-14795-1] c27 N76-15314
 Ceramic fiber insulating material and method of producing same
 [NASA-CASE-HSC-14795-2] c24 N78-25138

LINDBERG, J. G.
 Method and apparatus for varying thermal conductivity Patent
 [NASA-CASE-XNP-05524] c33 N71-24876

LINDBERG, R. A.
 High temperature beryllium oxide capacitor
 [NASA-CASE-LEW-11938-1] c33 N76-15373
 Bimetallic junctions
 [NASA-CASE-LEW-11573-1] c26 N77-28265

LINDERFELT, R. E.
 An airlock
 [NASA-CASE-NFS-20922] c31 N72-20840
 Airlock
 [NASA-CASE-NFS-20922-1] c18 N74-22136

LINDSEY, J. P., III
 Flexible blade antenna Patent
 [NASA-CASE-HSC-12101] c09 N71-18720

LINDSEY, R. S., JR.
 Pulse stretcher for narrow pulses
 [NASA-CASE-HSC-14130-1] c33 N74-32711
 Random pulse generator
 [NASA-CASE-HSC-14131-1] c33 N75-19515

LINDSEY, W. C.
 Transition tracking bit synchronization system
 [NASA-CASE-NPO-10844] c07 N72-20140
 Data-aided carrier tracking loops
 [NASA-CASE-NPO-11282] c10 N73-16205
 Coherent receiver employing nonlinear coherence detection for carrier tracking
 [NASA-CASE-NPO-11921-1] c32 N74-30523

LINDSEY, W. F.
 Stereo photomicrography system
 [NASA-CASE-LAR-10176-1] c14 N72-20380

LINDBACK, L. D.
 Thermal shock resistant hafnia ceramic material
 [NASA-CASE-LAR-10894-1] c18 N73-14584

LINDBARBER, E.
 Varying density composite structure
 [NASA-CASE-LAR-11181-1] c39 N75-31479

LINFORD, R. H. F.
 Flame detector operable in presence of proton radiation
 [NASA-CASE-NFS-21577-1] c19 N74-29410

LING, S. C.
 Flux sensing device using a tubular core with toroidal gating coil and solenoidal output coil wound thereon Patent
 [NASA-CASE-IGS-01881] c09 N70-40123

LINGLE, J. T.
 Frequency control network for a current feedback oscillator Patent
 [NASA-CASE-GSC-10041-1] c10 N71-19418
 Static inverter Patent
 [NASA-CASE-IGS-05289] c09 N71-19470

LINTON, A. T.
 Water quality monitoring system
 [NASA-CASE-HSC-16778-1] c51 N78-22589

LIPANOVICH, H. I.
 Medical subject monitoring systems
 [NASA-CASE-HSC-14180-1] c52 N76-14757

LIPKE, D. W.
 Doppler frequency spread correction device for multiplex transmissions
 [NASA-CASE-IGS-02749] c07 N69-39978

LIPKIS, R. B.
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 [NASA-CASE-WOO-00428-1] c32 N79-19186

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 [NASA-CASE-XNS-07168] c07 N71-11300
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 [NASA-CASE-XNS-05605-1] c10 N71-19468
 Data storage, image tube type
 [NASA-CASE-HSC-14053-1] c60 N74-12888
 System for producing chroma signals
 [NASA-CASE-HSC-14683-1] c74 N77-18893

LIPPITT, H. W., JR.
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 [NASA-CASE-XNS-02872] c05 N69-21925
 Instrument for use in performing a controlled Valsalva maneuver Patent
 [NASA-CASE-XNS-01615] c05 N70-41329

LISAGOR, W. B.
 Controlled glass bead peening Patent
 [NASA-CASE-XLA-07390] c15 N71-18616

LISLE, R. V.
 Lightning current measuring systems
 [NASA-CASE-KSC-10807-1] c33 N75-26246

LISOVICZ, E. J.
 High contrast cathode ray tube
 [NASA-CASE-ERC-10468] c09 N72-20206

LIST, W. F.
 Solid state television camera system Patent
 [NASA-CASE-XNP-06092] c07 N71-24612
 Phototransistor imaging system
 [NASA-CASE-NFS-20809] c23 N73-13660

LISTER, J. L.
 Thermally conductive polymers
 [NASA-CASE-GSC-11304-1] c06 N72-21105

LITANT, I.
 Apparatus and method for separating a semiconductor wafer Patent
 [NASA-CASE-ERC-10138] c26 N71-14354
 Method for detecting leaks in hermetically sealed containers Patent
 [NASA-CASE-ERC-10045] c15 N71-24910

LITCHFORD, G. B.
 Altitude measuring system
 [NASA-CASE-ERC-10412-1] c09 N73-12211

LITTLE, R. E.
 Method of making pressure tight seal for super alloy
 [NASA-CASE-LAR-10170-1] c37 N78-11301

LITTLEJOHN, D. P.
 High power-high voltage waterload Patent
 [NASA-CASE-XNP-05381] c09 N71-20882

LIU, F. F.
 Respiratory analysis system and method
 [NASA-CASE-HSC-13436-1] c05 N73-32015

LIVERNORE, S. F.
 Lightning current detector
 [NASA-CASE-KSC-11057-1] c33 N79-14305

LLOYD, W. B.
 Bearing and gimbal lock mechanism and spiral flex lead module Patent
 [NASA-CASE-GSC-10556-1] c31 N71-26537

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 Frequency modulation demodulator threshold extension device Patent
 [NASA-CASE-HSC-12165-1] c07 N71-33696

LOCKARD, H. L.
 Leak detector Patent
 [NASA-CASE-LAR-10323-1] c12 N71-17573

LOCKMAN, C. S.
 Method and apparatus for nondestructive testing of pressure vessels
 [NASA-CASE-NPO-12142-1] c38 N76-28563

LOCKWOOD, V. E.
 Landing arrangement for aerial vehicles Patent
 [NASA-CASE-XLA-00142] c02 N70-33286
 Landing arrangement for aerial vehicle Patent
 [NASA-CASE-XLA-00806] c02 N70-34858
 Landing arrangement for aerospace vehicle Patent
 [NASA-CASE-XLA-00805] c31 N70-38010

LOFTIN, L. K., JR.
 Wind tunnel airstream oscillating apparatus Patent
 [NASA-CASE-XLA-00112] c11 N70-33287

LOGAN, W. E.
 Method of preparing zinc orthotitanate pigment
 [NASA-CASE-NFS-23345-1] c27 N77-30237

LOE, G. H.
 Medical subject monitoring systems
 [NASA-CASE-HSC-14180-1] c52 N76-14757

LOHR, J. J.
 Variable stiffness polymeric damper
 [NASA-CASE-XAC-11225] c14 N69-27486

LOKERSON, D. C.
Voltage to frequency converter Patent
[NASA-CASE-GSC-10022-1] c10 N71-25882
X-Y alphanumeric character generator for
oscilloscopes
[NASA-CASE-GSC-11582-1] c33 N75-19517
Speech analyzer
[NASA-CASE-GSC-11898-1] c32 N77-30309

LOMBORG, J. O.
Attitude control for spacecraft Patent
[NASA-CASE-XNP-02982] c31 N70-41855

LONG, E. R., JR.
Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210

LONG, H. R.
Precipitation detector Patent
[NASA-CASE-XLA-02619] c10 N71-26334

LONG, R. A.
High temperature compositions Patent
[NASA-CASE-IMS-00370] c17 N71-20941

LONG, W. C.
Technique for extending the frequency range of
digital dividers
[NASA-CASE-LAR-10730-1] c33 N74-10223
Non-destructive method for applying and removing
instrumentation on helicopter rotor blades
[NASA-CASE-LAR-11201-1] c35 N78-24515

LONGYEAR, W. D.
Omnidirectional acceleration device Patent
[NASA-CASE-BQN-10780] c14 N71-30265

LOOK, G. F.
Foam generator Patent
[NASA-CASE-XLA-00838] c03 N70-36778

LOONIS, J. A.
Device to prevent clogging in a hopper
[NASA-CASE-LAR-10961-1] c15 N73-12496

LOOP, R. W.
Absolute focus lock for microscopes
[NASA-CASE-LAR-10184] c14 N72-22445

LOOSE, J. D.
Steady state thermal radiometers
[NASA-CASE-NFS-21108-1] c34 N74-27861

LOPEZ, A. B.
Three-axis finger tip controller for switches
Patent
[NASA-CASE-IAC-02405] c09 N71-16089

LORE, H. C., III
Analysis of hydrogen-deuterium mixtures
[NASA-CASE-NPO-11322] c06 N72-25146

LORELL, K. R.
High temperature lens construction Patent
[NASA-CASE-XNP-04111] c14 N71-15622
All sky pointing attitude control system
[NASA-CASE-ABC-10716-1] c35 N77-20399

LOTHSCHUETZ, P. X.
Stretcher Patent
[NASA-CASE-XNP-06589] c05 N71-23159

LOTT, D. R.
Method of fabricating a photovoltaic of a
substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

LOUGHEAD, A. G.
Linear differential pressure sensor Patent
[NASA-CASE-XNP-01974] c14 N71-22752

LOUNSBERRY, E. D.
Jet shoes
[NASA-CASE-XLA-08491] c05 N69-21380

LOVALL, D. D.
Electric field measuring and display system
[NASA-CASE-KSC-10731-1] c33 N74-27862

LOVELL, J. S.
Portable breathing system
[NASA-CASE-MSC-16182-1] c54 N77-21847

LOVELL, R. R.
Process for preparing liquid metal electrical
contact device
[NASA-CASE-LEW-11978-1] c33 N77-26385
Liquid metal slip ring
[NASA-CASE-LEW-12277-2] c33 N78-25323

LOVELOCK, J. E.
Atmospheric sampling devices
[NASA-CASE-NPO-11373] c13 N72-25323

LOVINGER, D. R.
Voice operated controller Patent
[NASA-CASE-XLA-04063] c31 N71-33160

LOW, C. A., JR.
Electrostatic propulsion system with a direct
nuclear electrogenerator Patent
[NASA-CASE-XLE-00818] c22 N70-34248

LOWE, E. G.
Continuous turning slip ring assembly Patent
[NASA-CASE-XNP-01049] c15 N71-23049

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reference Patent
[NASA-CASE-XGS-03431] c21 N71-15642
Roll alignment detector
[NASA-CASE-GSC-10514-1] c14 N72-20379

LOWERY, J. E.
Panel for selectively absorbing solar thermal
energy and the method of producing said panel
[NASA-CASE-NFS-22562-1] c44 N76-14595

LOWRY, J. G.
Jet aircraft configuration Patent
[NASA-CASE-XLA-00087] c02 N70-33332
Variable-span aircraft Patent
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LOY, C. A.
Tank construction for space vehicles Patent
[NASA-CASE-XNP-01899] c31 N70-41948

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System for maintaining a motor at a
predetermined speed utilizing digital feedback
means Patent
[NASA-CASE-XNP-06892] c05 N71-24805
RC rate generator for slow speed measurement
Patent
[NASA-CASE-XNP-02966] c10 N71-24863

LUBOWITZ, H. R.
Ablative resin Patent
[NASA-CASE-XLE-05913] c33 N71-14032
Reinforced structural plastics
[NASA-CASE-LEW-10199-1] c27 N74-23125

LOCAS, C. H.
Analog to digital converter
[NASA-CASE-NPO-13385-1] c33 N76-18345

LUCHERO, D. P.
Method for detecting hydrogen gas
[NASA-CASE-XNP-03873] c06 N69-39733

LUCHY, R. A.
A technique for breaking ice in the path of a ship
[NASA-CASE-LAR-10815-1] c16 N72-22520

LUCY, H. E.
Holed composite pyrogen igniter for rocket motors
[NASA-CASE-LAR-12018-1] c20 N78-24275

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for adjusting the relative amplitude of two
modes Patent
[NASA-CASE-XNP-03134] c07 N71-10676
Singly-curved reflector for use in high-gain
antennas
[NASA-CASE-NPO-11361] c07 N72-32169
Dual frequency microwave reflex feed
[NASA-CASE-NPO-13091-1] c09 N73-12214
Low loss dichroic plate
[NASA-CASE-NPO-13171-1] c32 N74-11000

LUDWIG, L. P.
Pill seal
[NASA-CASE-XLE-05130] c15 N69-21362
Pill seal Patent
[NASA-CASE-XLE-05130-2] c15 N71-19570
Spiral groove seal
[NASA-CASE-XLE-10326-2] c15 N72-29488
Spiral groove seal
[NASA-CASE-LEW-10326-3] c37 N74-10474
Spiral groove seal
[NASA-CASE-XLE-10326-4] c37 N74-15125
High speed, self-acting shaft seal
[NASA-CASE-LEW-11274-1] c37 N75-21631
Circumferential shaft seal
[NASA-CASE-LEW-12119-1] c37 N76-20488
Fluid seal for rotating shafts
[NASA-CASE-LEW-11676-1] c37 N76-22541
Counter pumping debris excluder and separator
[NASA-CASE-LEW-11855-1] c07 N78-25090
Gas path seal
[NASA-CASE-LEW-12131-2] c07 N78-31103
Composite seal for turbomachinery
[NASA-CASE-LEW-12131-1] c37 N79-18318

LUEBBERS, S. S.
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Patent Application
[NASA-CASE-NPO-11138] c03 N70-34646
Thermionic diode switch Patent
[NASA-CASE-NPO-10404] c03 N71-12255

LUBBERING, G. W.
Blade retainer assembly

[NASA-CASE-LEW-12608-1] c07 N77-27116
LUN, R.
 Sampling video compression system
 [NASA-CASE-ARC-10984-1] c32 N77-24328
LUNCE, R. S.
 Medical subject monitoring systems
 [NASA-CASE-MSC-14180-1] c52 N76-14757
LUND, G. F.
 Subcutaneous channeling probe
 [NASA-CASE-ARC-11091-1] c52 N79-11684
 Improved subcutaneous electrode structure
 [NASA-CASE-ARC-11117-1] c52 N79-15576
LUND, W. C.
 Heated porous plug microthruster
 [NASA-CASE-GSC-10640-1] c28 N72-18766
LUNDQUIST, J. R.
 Preparation of high purity copper fluoride
 [NASA-CASE-LEW-10794-1] c06 N72-17093
LUSHBAUGH, W. A.
 Data compression system
 [NASA-CASE-XNP-09785] c08 N69-21928
 Data compressor Patent
 [NASA-CASE-XNP-04067] c08 N71-22707
 Error correcting method and apparatus Patent
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 numbers Patent
 [NASA-CASE-XNP-04819] c08 N71-23295
 Parallel generation of the check bits of a PN
 sequence Patent
 [NASA-CASE-XNP-04623] c10 N71-26103
 Versatile arithmetic unit for high speed
 sequential decoder
 [NASA-CASE-NPO-11371] c08 N73-12177
LUTES, G. F., JR.
 Broadband stable power multiplier Patent
 [NASA-CASE-XNP-10854] c10 N71-26331
 Cascaded complementary pair broadband transistor
 amplifiers Patent
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 Low phase noise digital frequency divider
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LUTZ, E. B.
 Operational integrator Patent
 [NASA-CASE-NPO-10230] c09 N71-12520
LYLAND, J. W.
 Versatile arithmetic unit for high speed
 sequential decoder
 [NASA-CASE-NPO-11371] c08 N73-12177
LYNCH, E. J.
 Three-axis adjustable loading structure
 [NASA-CASE-FRC-10051-1] c35 N74-13129
LYNCH, T. L.
 Pulsed excitation voltage circuit for transducers
 [NASA-CASE-FRC-10036] c09 N72-22200
LYON, W. E.
 Optical range finder having nonoverlapping
 complete images
 [NASA-CASE-MSC-12105-1] c14 N72-21409

M

MA, L. H.
 Digital numerically controlled oscillator
 [NASA-CASE-MSC-16747-1] c33 N79-17138
MACCONNELL, J. W.
 Ultra stable frequency distribution system
 [NASA-CASE-NPO-13836-1] c32 N78-15323
MACCONOCHIE, I. O.
 Excessive temperature warning system Patent
 [NASA-CASE-XLA-01926] c14 N71-15620
MACDAVID, K. S.
 Thermocouple installation
 [NASA-CASE-NPO-13540-1] c35 N77-14409
MACDORAN, P. F.
 System for near real-time crustal deformation
 monitoring
 [NASA-CASE-NPO-14124-1] c46 N78-17529
 Interferometric locating system
 [NASA-CASE-NPO-14173-1] c04 N79-10039
MACFADDEN, J. A.
 Rotating mandrel for assembly of inflatable
 devices Patent
 [NASA-CASE-XLA-04143] c15 N71-17687
MACGLASHAN, W. F., JR.
 Belleville spring assembly with elastic guides
 [NASA-CASE-XNP-09452] c15 N69-27504
 High pressure four-way valve Patent
 [NASA-CASE-XNP-00214] c15 N70-36908

Multiple Belleville spring assembly Patent
 [NASA-CASE-XNP-00840] c15 N70-38225
 Pressure regulating system Patent
 [NASA-CASE-XNP-00450] c15 N70-38603
 Ejection unit Patent
 [NASA-CASE-XNP-00676] c15 N70-38996
 Reinforcing means for diaphragms Patent
 [NASA-CASE-XNP-01962] c32 N70-41370
 High pressure filter Patent
 [NASA-CASE-XNP-00732] c28 N70-41447
 Antiflutter ball check valve Patent
 [NASA-CASE-XNP-01152] c15 N70-41811
 High pressure regulator valve Patent
 [NASA-CASE-XNP-00710] c15 N71-10778
 Filler valve Patent
 [NASA-CASE-XNP-01747] c15 N71-23024
 Power control for hot gas engines
 [NASA-CASE-NPO-14220-1] c37 N78-25430
HACKAY, C. A.
 Quick disconnect latch and handle combination
 Patent
 [NASA-CASE-NFS-11132] c15 N71-17649
HACLEOD, W. H.
 Bacterial contamination monitor
 [NASA-CASE-GSC-10879-1] c14 N72-25413
HACOMBEE, J. W.
 Nuclear reactor control rod assembly with
 improved driving mechanism Patent
 [NASA-CASE-XLE-00298] c22 N70-34501
HACVEIGH, G. E.
 Analog spatial maneuver computer
 [NASA-CASE-GSC-10880-1] c08 N72-11172
HADDOX, J. W.
 Air bearing
 [NASA-CASE-WLP-10002] c15 N72-17451
HADLEY, J. H.
 Satellite appendage tie down cord Patent
 [NASA-CASE-XGS-02554] c31 N71-21064
 Redundant actuating mechanism Patent
 [NASA-CASE-XGS-08718] c15 N71-24600
 Rotary electric device
 [NASA-CASE-GSC-12138-1] c33 N79-20314
HADISON, I. B.
 Aerodynamic spike nozzle Patent
 [NASA-CASE-XGS-01143] c31 N71-15647
HADSEN, B.
 Apparatus and method for skin packaging articles
 [NASA-CASE-NFS-20855] c15 N73-27405
HAAH, J. C.
 Device for preventing high voltage arcing in
 electron beam welding Patent
 [NASA-CASE-XNP-08522] c15 N71-19486
HADSEN, D. L.
 Flow velocity and directional instrument
 [NASA-CASE-LAR-10855-1] c14 N73-13415
 Two dimensional wedge/translating shroud nozzle
 [NASA-CASE-LAR-11919-1] c07 N78-27121
HAILLOUX, B. J.
 Array phasing device Patent
 [NASA-CASE-ERC-10046] c10 N71-18722
 Circularly polarized antenna
 [NASA-CASE-ERC-10214] c09 N72-31235
 Phase control circuits using frequency
 multiplications for phased array antennas
 [NASA-CASE-ERC-10285] c10 N73-16206
HADJON, C. J.
 Mixture separation cell Patent
 [NASA-CASE-XMS-02952] c18 N71-20742
HALLING, L. E.
 Digital television camera control system Patent
 [NASA-CASE-XNP-01472] c14 N70-41807
 Reduced bandwidth video communication system
 utilizing sampling techniques Patent
 [NASA-CASE-XNP-02791] c07 N71-23026
HALLBERG, J. H.
 Waveform simulator Patent
 [NASA-CASE-NPO-10251] c10 N71-27365
HALONE, L. E.
 Emergency lunar communications system
 [NASA-CASE-NFS-21042] c07 N72-25171
HAWATT, S. L.
 Audio frequency marker system
 [NASA-CASE-NPO-11147] c14 N72-27408
HANDEL, C. E.
 Azimuth laying system Patent
 [NASA-CASE-XNP-01669] c21 N71-23289
HANDELKORN, J.
 Method of making a silicon semiconductor device
 Patent

[NASA-CASE-XLE-02792] c26 N71-10607
Method of making electrical contact on silicon
solar cell and resultant product Patent
[NASA-CASE-XLE-04787] c03 N71-20492
Gd or Sm doped silicon semiconductor composition
Patent
[NASA-CASE-XLE-10715] c26 N71-23292
Silicon solar cell with cover glass bonded to
cell by metal pattern Patent
[NASA-CASE-XLE-08569] c03 N71-23449
Semiconductor material and method of making same
Patent
[NASA-CASE-XLE-02798] c26 N71-23654
Method of attaching a cover glass to a silicon
solar cell Patent
[NASA-CASE-XLE-08569-2] c03 N71-24681
HANDELL, A.
Condition sensor system and method
[NASA-CASE-HSC-14805-1] c54 N78-32720
HANGION, C.
System for preconditioning a combustible vapor
[NASA-CASE-NPO-12072] c28 N72-22772
HANGOLD, D. W.
Medical subject monitoring systems
[NASA-CASE-HSC-14180-1] c52 N76-14757
HANN, C. W.
Rotary target V-block
[NASA-CASE-LAR-12007-1] c74 N78-15883
HANN, W. A.
Compact artificial hand
[NASA-CASE-NPO-13906-1] c54 N77-32723
HANNING, C. R.
Thermal shock and erosion resistant tantalum
carbide ceramic material
[NASA-CASE-LAR-11902-1] c27 N78-17206
HANNING, C. R., JR.
Controlled glass bead peening Patent
[NASA-CASE-XLA-07390] c15 N71-18616
Thermal shock resistant hafnia ceramic material
[NASA-CASE-LAR-10894-1] c18 N73-14584
HAROLI, E.
Aircraft crash locator apparatus
[NASA-CASE-NPS-16609] c14 N72-21431
Aircraft-mounted crash-activated transmitter
device
[NASA-CASE-NPS-16609-3] c03 N76-32140
HANSOON, H. B.
Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123
HASTLER, R. L.
Rocket propellant injector Patent
[NASA-CASE-XLE-00103] c28 N70-33241
HAUS, E. A.
Active microwave irises and windows
[NASA-CASE-LAR-10513-1] c07 N72-25170
Thin film microwave iris
[NASA-CASE-LAR-10511-1] c09 N72-29172
Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339
HAULE, W. E.
Analytical test apparatus and method for
determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527
HAPLES, H. E.
Light intensity modulator controller Patent
[NASA-CASE-XNS-04300] c09 N71-19479
HARATA, R. J.
Thermal insulation protection means
[NASA-CASE-HSC-12737-1] c34 N77-22423
HARAK, R. J.
Life raft stabilizer
[NASA-CASE-HSC-12393-1] c02 N73-26006
HARCELL, G. V.
Method and apparatus for preparing
multiconductor cable with flat conductors
[NASA-CASE-NPS-10946-1] c31 N79-21226
Edge coating of flat wires
[NASA-CASE-XNP-05757-1] c31 N79-21227
HARCUS, D. C., JR.
Hypersonic airbreathing missile
[NASA-CASE-LAR-12264-1] c15 N78-32168
HARCUS, R. D.
Flat-plate heat pipe
[NASA-CASE-GSC-11998-1] c34 N77-32413
HARCUS, H. L.
Laser extensometer
[NASA-CASE-NPS-19259-1] c36 N78-14380
HAREK, C. J.
Fuel combustor
[NASA-CASE-LEW-12137-1] c25 N78-10224
Supercritical fuel injection system
[NASA-CASE-LEW-12990-1] c07 N78-27122
HARGOLIS, J. S.
Stark cell optoacoustic detection of constituent
gases in sample
[NASA-CASE-NPO-14143-1] c25 N79-10169
Stark cell spectrophone with polarization
modulation
[NASA-CASE-NPO-14362-1] c35 N79-10392
HARGOSIAN, P. M.
Electrostatic thruster with improved insulators
Patent
[NASA-CASE-XLE-01902] c28 N71-10574
Single grid accelerator for an ion thruster
[NASA-CASE-XLE-10453-2] c28 N73-27699
HARGRAY, H. J.
High pressure four-way valve Patent
[NASA-CASE-XNP-00214] c15 N70-36908
HARKLEY, R. A.
Self-adjusting multisegment, deployable, natural
circulation radiator Patent
[NASA-CASE-XHQ-03673] c33 N71-29046
HARLOW, R. O.
Method of making a cermet Patent
[NASA-CASE-LEW-10219-1] c18 N71-28729
HARLOW, R. E.
System for enhancing tool-exchange capabilities
of a portable wrench
[NASA-CASE-NPS-22283-1] c37 N75-33395
Remotely operable articulated manipulator
[NASA-CASE-NPS-22707-1] c37 N76-15457
HAROPIS, N.
Methods and apparatus employing vibratory energy
for wrenching Patent
[NASA-CASE-NPS-20586] c15 N71-17686
HARRKLE, R. A.
Process for preparation of dihydrosilanes Patent
[NASA-CASE-XNP-06409] c06 N71-23230
HARRONI, H. A., JR.
Pressure garment joint Patent
[NASA-CASE-XNS-09636] c05 N71-12344
Omnidirectional joint Patent
[NASA-CASE-XNS-09635] c05 N71-24623
Foreshortened convolute section for a
pressurized suit Patent
[NASA-CASE-XNS-09637-1] c05 N71-24730
Method of forming a root cord restrained
convolute section
[NASA-CASE-HSC-12398] c05 N72-20098
Restraint torso for a pressurized suit
[NASA-CASE-HSC-12397-1] c05 N72-25119
HARSH, H. E., JR.
Trifunctional alcohol
[NASA-CASE-NPO-10714] c06 N69-31244
Novel polycarboxylic prepolymeric materials and
polymers thereof Patent
[NASA-CASE-NPO-10596] c06 N71-25929
Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NPO-13620-1] c27 N77-30236
Oil and fat absorbing polymers
[NASA-CASE-NPO-11609-2] c27 N77-31308
Solid propellant motor
[NASA-CASE-NPO-11458A] c20 N78-32179
MARSHALL, J. B.
Baseline stabilization system for ionization
detector Patent
[NASA-CASE-XNP-03128] c10 N70-41991
MARSHALL, T. M., JR.
Nuclear mass flowmeter
[NASA-CASE-NPS-20485] c14 N72-11365
MARSIK, S. J.
Selective nickel deposition
[NASA-CASE-LEW-10965-1] c15 N72-25452
Production of pure metals
[NASA-CASE-LEW-10906-1] c25 N74-30502
Process for making anhydrous metal halides
[NASA-CASE-LEW-11860-1] c37 N76-18458
MARTEL, R. J.
Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860
MARTIN, J. A.
Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120
MARTIN, J. W.
Dynamic Doppler simulator Patent
[NASA-CASE-XNS-05454-1] c07 N71-12391
MARTIN, W. C.
Segmented back-up bar Patent

INVENTOR INDEX

MAYO, E. E.

[NASA-CASE-XMF-00640] c15 N70-39924
 Portable alignment tool Patent
 [NASA-CASE-XMF-01452] c15 N70-41371

MARTIN, R. B.
 Color perception tester
 [NASA-CASE-KSC-10278] c05 N72-16015

MARTIN, S. C.
 Correlation type phase detector
 [NASA-CASE-GSC-11744-1] c33 N75-26243

MARTIN, W. L.
 Phase-locked loop with sideband rejecting
 properties Patent
 [NASA-CASE-XNP-02723] c07 N70-41680
 Method of resolving clock synchronization error
 and means therefor Patent
 [NASA-CASE-XNP-08875] c10 N71-23099
 Communications link for computers
 [NASA-CASE-NPO-11161] c08 N72-25207
 Binary coded sequential acquisition ranging system
 [NASA-CASE-NPO-11194] c08 N72-25209
 Digital video display system using cathode ray
 tube
 [NASA-CASE-NPO-11342] c09 N72-25248
 Digital demodulator-correlator
 [NASA-CASE-NPO-13982-1] c32 N79-14267

MARTINAGE, L. H.
 Power supply Patent
 [NASA-CASE-XNS-02159] c10 N71-22961

MARTINECK, E. G.
 Electrical connector for flat cables Patent
 [NASA-CASE-XMF-00324] c09 N70-34596
 Printed cable connector Patent
 [NASA-CASE-XMF-00369] c09 N70-36494
 Method of making a molded connector Patent
 [NASA-CASE-XMF-03498] c15 N71-15986
 Electrical connector
 [NASA-CASE-NFS-20757] c09 N72-28225

MARTUCCI, V. J.
 Tuning arrangement for an electron discharge
 device or the like Patent
 [NASA-CASE-XNP-09771] c09 N71-24841

MARTZ, E. L.
 Externally pressurized fluid bearing Patent
 [NASA-CASE-XNP-00515] c15 N70-34664

MARZEN, R. A.
 Tool for use in lifting pin supported objects
 [NASA-CASE-NPO-13157-1] c37 N74-32918

MASCI, A. C.
 Deep space monitor communication satellite
 system Patent
 [NASA-CASE-XAC-06029-1] c31 N71-24813

MASEK, T. D.
 Electron bombardment ion engine Patent
 [NASA-CASE-XNP-04124] c28 N71-21822
 Feed system for an ion thruster
 [NASA-CASE-NPO-10737] c28 N72-11709

MASERJIAN, J.
 Temperature sensitive capacitor device
 [NASA-CASE-NXP-09750] c14 N69-39937
 Thin film capacitive bolometer and temperature
 sensor Patent
 [NASA-CASE-NPO-10607] c09 N71-27232
 Thin film temperature sensor and method of
 making same
 [NASA-CASE-NPO-11775] c26 N72-28761
 Use of thin film light detector
 [NASA-CASE-NPO-11432-2] c35 N74-15090
 Deep trap, laser activated image converting system
 [NASA-CASE-NPO-13131-1] c36 N75-19652
 Stored charge transistor
 [NASA-CASE-NPO-11156-2] c33 N75-31331
 Method and apparatus for measurement of trap
 density and energy distribution in dielectric
 films
 [NASA-CASE-NPO-13443-1] c76 N76-20994

MASLOWSKI, E. A.
 Method of making an insulation foil
 [NASA-CASE-LEW-11484-1] c24 N75-33181

MASON, J. W.
 Microcomputerized electric field meter
 diagnostic and calibration system
 [NASA-CASE-KSC-11035-1] c35 N78-28411

MASON, R. J.
 Collapsible reflector Patent
 [NASA-CASE-XNS-03454] c09 N71-20658

MASON, R. H.
 Radial module space station Patent
 [NASA-CASE-XNS-01906] c31 N70-41373

MASSUCCO, A. A.
 Non-flammable elastomeric fiber from a
 fluorinated elastomer and containing an
 halogenated flame retardant
 [NASA-CASE-HSC-14331-1] c27 N76-24405
 Flame retardant spandex type polyurethanes
 [NASA-CASE-HSC-14331-2] c27 N78-17213
 Process for spinning flame retardant
 elastomeric
 compositions
 [NASA-CASE-HSC-14331-3] c27 N78-32262

MATEER, G. C.
 Flow separation detector
 [NASA-CASE-ARC-11046-1] c35 N78-14364

MATHUR, P. P.
 Program for computer aided reliability estimation
 [NASA-CASE-NPO-13086-1] c15 N73-12495

MATSUMOTO, D. S.
 Shoulder harness and lap belt restraint system
 [NASA-CASE-ARC-10519-2] c05 N75-25915

MATSUMOTO, Y.
 Sampling video compression system
 [NASA-CASE-ARC-10984-1] c32 N77-24328

MATTAUCH, R. J.
 Infrared detectors
 [NASA-CASE-LAR-10728-1] c14 N73-12445

MATTHEWS, P. R., JR.
 Lightweight, variable solidity knitted parachute
 fabric
 [NASA-CASE-LAR-10776-1] c02 N74-10034

MATZEN, W. J.
 Apparatus for measuring semiconductor device
 resistance
 [NASA-CASE-NPO-14424-1] c33 N78-28340

MAULDIN, D. G.
 Contourograph system for monitoring
 electrocardiograms
 [NASA-CASE-HSC-13407-1] c10 N72-20225

MAUS, L. C.
 Dual mode solid state power switch
 [NASA-CASE-NFS-22880-1] c33 N76-31410
 Dual mode solid state power switch
 [NASA-CASE-NFS-22880-2] c33 N77-31407

MAXWELL, H. G.
 Method of adhering bone to a rigid substrate
 using a graphite fiber reinforced bone cement
 [NASA-CASE-NPO-13764-1] c27 N78-17215

MAXWELL, H. S.
 Spacecraft attitude detection system by stellar
 reference Patent
 [NASA-CASE-XGS-03431] c21 N71-15642
 Programmable telemetry system Patent
 [NASA-CASE-GSC-10131-1] c07 N71-24624
 Plural beam antenna
 [NASA-CASE-GSC-11013-1] c09 N73-19234

MAXWELL, H. W.
 Helical coaxial resonator RF filter
 [NASA-CASE-XGS-02816] c07 N69-24323

MAXWELL, E. P., JR.
 Electronic background suppression method and
 apparatus for a field scanning sensor
 [NASA-CASE-XGS-05211] c07 N69-39980

MAXWELL, W. A.
 Process of casting heavy slips Patent
 [NASA-CASE-XLE-00106] c15 N71-16076

MAY, C. E.
 Selective nickel deposition
 [NASA-CASE-LEW-10965-1] c15 N72-25452
 Production of pure metals
 [NASA-CASE-LEW-10906-1] c25 N74-30502
 Process for making anhydrous metal halides
 [NASA-CASE-LEW-11860-1] c37 N76-18458

MAY, C. J.
 Capacitor power pak Patent Application
 [NASA-CASE-LAR-10367-1] c03 N70-26817

MAYALL, S. D.
 Frictionless universal joint Patent
 [NASA-CASE-NPO-10646] c15 N71-28467

MAYER, L. A.
 Chelate-modified polymers for atmospheric gas
 chromatography
 [NASA-CASE-ARC-11154-1] c27 N78-27275

MAYNARD, O. E.
 Radial module space station Patent
 [NASA-CASE-XNS-01906] c31 N70-41373

MAYNE, R. C.
 Shock absorbing mount for electrical components
 [NASA-CASE-NPO-13253-1] c37 N75-18573

MAYO, E. E.
 Hypersonic reentry vehicle Patent

[NASA-CASE-XHS-04142]	c31 N70-41631	[NASA-CASE-GSC-11743-1]	c32 N75-24981
HAYO, J. W.		McCLENNAN, J. O.	
Connector - Electrical		High speed shutter	
[NASA-CASE-XLA-01288]	c09 N69-21470	[NASA-CASE-ARC-10516-1]	c70 N74-21300
Tubular coupling having frangible connecting means		Photomultiplier circuit including means for	
[NASA-CASE-XLA-02854]	c15 N69-27490	rapidly reducing the sensitivity thereof	
Missile stage separation indicator and stage		[NASA-CASE-ARC-10593-1]	c33 N74-27682
initiator Patent		McCLURE, W. E.	
[NASA-CASE-XLA-00791]	c03 N70-39930	The 2 deg/90 deg laboratory scattering photometer	
Detector panels-micrometeoroid impact Patent		[NASA-CASE-GSC-12088-1]	c74 N78-13874
[NASA-CASE-XLA-05906]	c31 N71-16221	McCLURE, J. C.	
HAYO, R. F.		Preparation of monotectic alloys having a	
Electric-arc heater Patent		controlled microstructure by directional	
[NASA-CASE-XLA-00330]	c33 N70-34540	solidification under dopant-induced interface	
HAZARIS, G. A.		breakdown	
Application of semiconductor diffusants to solar		[NASA-CASE-NFS-23816-1]	c26 N79-16943
cells by screen printing		McCLURE, S. R.	
[NASA-CASE-LEW-12775-1]	c44 N79-11468	Method and apparatus for holding two separate	
HAZER, L.		metal pieces together for welding	
Analog-to-digital conversion system Patent		[NASA-CASE-GSC-12318-1]	c37 N78-23434
[NASA-CASE-XAC-00404]	c08 N70-40125	McCONAUGHEY, R. T.	
HAZIQUE, J.		Star scanner	
A cervix-to-rectum measuring device in a		[NASA-CASE-GSC-11569-1]	c89 N74-30886
radiation applicator for use in the treatment		McCONWELL, J. C.	
of cervical cancer		Method of plating copper on aluminum Patent	
[NASA-CASE-GSC-12081-2]	c52 N77-26796	[NASA-CASE-XLA-08966-1]	c17 N71-25903
HAZUR, J. T.		McCONRACK, W.	
Telescoping columns		Single action separation mechanism Patent	
[NASA-CASE-LAR-12195-1]	c37 N78-33446	[NASA-CASE-XLA-00188]	c15 N71-22874
HCAFFE, D. F.		McCONRICK, C. T., JR.	
Bi-polar phase detector and corrector for split		Automatic signal range selector for metering	
phase PCH data signals Patent		devices Patent	
[NASA-CASE-XGS-01590]	c07 N71-12392	[NASA-CASE-XHS-06497]	c14 N71-26244
Radio frequency coaxial high pass filter Patent		McCHAW, D. L.	
[NASA-CASE-XGS-01418]	c09 N71-23573	Emergency escape system Patent	
MCALXANDER, B. T.		[NASA-CASE-MSC-12086-1]	c05 N71-12345
Laser head for simultaneous optical pumping of		McCHUA, F. E.	
several dye lasers		Indexing microwave switch Patent	
[NASA-CASE-LAR-11341-1]	c36 N75-19655	[NASA-CASE-XNP-06507]	c09 N71-23548
MCBRAYER, R. O.		Support assembly for cryogenically coolable	
Soft frame adjustable eyeglasses Patent		low-noise choked waveguide	
[NASA-CASE-XHS-06064]	c05 N71-23096	[NASA-CASE-NFO-14253-1]	c31 N79-10246
MCBRYAN		McCHUBBY, R. A.	
Ion-exchange membrane with platinum electrode		Parallel motion suspension device Patent	
assembly Patent		[NASA-CASE-XNP-01567]	c15 N70-41310
[NASA-CASE-XHS-02063]	c03 N71-29044	McCHUBRIGHT, L. R.	
MCBRYAN, R.		Electrophoretic sample insertion	
Reconstituted asbestos matrix		[NASA-CASE-NFS-21395-1]	c25 N74-26948
[NASA-CASE-MSC-12568-1]	c24 N76-14204	Apparatus for conducting flow electrophoresis in	
MCCEIG, J. C.		the substantial absence of gravity	
Electric arc welding Patent		[NASA-CASE-NFS-21394-1]	c34 N74-27744
[NASA-CASE-XNP-00392]	c15 N70-34814	McCUSKER, T. J.	
McCALLUM, J.		Foldable solar concentrator Patent	
Porous electrode comprising a bonded stack of		[NASA-CASE-XLA-04622]	c03 N70-41580
pieces of corrugated metal foil		McDANIELS, D. L.	
[NASA-CASE-GSC-11368-1]	c09 N73-32108	Reinforced metallic composites Patent	
McCANPSELL, W. E.		[NASA-CASE-XLE-02428]	c17 N70-33288
Electric arc welding Patent		Method of making fiber reinforced metallic	
[NASA-CASE-XNP-00392]	c15 N70-34814	composites Patent	
Weld control system using thermocouple wire Patent		[NASA-CASE-XLE-00231]	c17 N70-38198
[NASA-CASE-NFS-06074]	c15 N71-20393	Reinforced metallic composites Patent	
RC rate generator for slow speed measurement		[NASA-CASE-XLE-00228]	c17 N70-38490
Patent		McDARIS, R. A.	
[NASA-CASE-XNP-02966]	c10 N71-24863	Emergency escape system Patent	
A dc motor speed control system Patent		[NASA-CASE-IKS-07814]	c15 N71-27067
[NASA-CASE-NFS-14610]	c09 N71-28886	McDAVID, L. S.	
McCANDLESS, L. C.		Specific wavelength colorimeter	
Method of making reinforced composite structure		[NASA-CASE-MSC-14081-1]	c35 N74-27860
[NASA-CASE-LEW-12619-1]	c24 N77-19171	McDERBOND, D. K.	
McCANN, D. E.		Synchronous counter Patent	
Phototransistor		[NASA-CASE-IGS-02440]	c08 N71-19432
[NASA-CASE-NFS-20407]	c09 N73-19235	McDEVITT, P. R.	
Time delay and integration detectors using		Laser coolant and ultraviolet filter	
charge transfer devices		[NASA-CASE-NFS-20180]	c16 N72-12440
[NASA-CASE-GSC-12324-1]	c33 N79-13262	McDONALD, G. E.	
McCANN, R. J.		Nuclear fuel elements	
Device for handling heavy loads		[NASA-CASE-XLE-00209]	c22 N73-32528
[NASA-CASE-XNP-04969]	c11 N69-27466	Selective coating for solar panels	
McCAW, J. L.		[NASA-CASE-LEW-12159-1]	c44 N78-19599
Lunar penetrometer Patent		McDONALD, R. T.	
[NASA-CASE-XLA-00934]	c14 N71-22765	Gas low pressure low flow rate metering system	
McCAUL, P. F.		Patent	
Sidereal frequency generator Patent		[NASA-CASE-PRC-10022]	c12 N71-26546
[NASA-CASE-IGS-02610]	c14 N71-23174	Respiration monitor	
McCRESHNEY, J. F., JR.		[NASA-CASE-PRC-10012]	c14 N72-17329
High voltage distributor		McDOUGAL, A. E.	
[NASA-CASE-GSC-11849-1]	c33 N76-16332	Force-balanced, throttle valve Patent	
McCRESHNEY, J. R.		[NASA-CASE-NFO-10808]	c15 N71-27432
Modulator for tone and binary signals			

INVENTOR INDEX

MELANED, L.

Quick disconnect coupling
[NASA-CASE-NPO-11202] c15 N72-25450

Rotary actuator
[NASA-CASE-NPO-10680] c31 N73-14855

Disconnect unit
[NASA-CASE-NPO-11330] c33 N73-26958

Zero torque gear head wrench
[NASA-CASE-NPO-13059-1] c37 N76-20480

Hot gas engine with dual crankshafts
[NASA-CASE-NPO-14221-1] c37 N78-25431

A phase-angle controller for stirling engines
[NASA-CASE-NPO-14388-1] c37 N79-17217

MCKEELAN, R. A.
Bonding method in the manufacture of continuous regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

MCPADIN, L. W.
Platinum resistance thermometer circuit
[NASA-CASE-MSC-12327-1] c35 N77-27368

MCGAUGH, W. J.
Ophthalmic method and apparatus
[NASA-CASE-LEW-11669-1] c05 N73-27062

Ophthalmic liquifaction pump
[NASA-CASE-LEW-12051-1] c52 N75-33640

Intra-ocular pressure normalization technique and equipment
[NASA-CASE-LEW-12723-1] c52 N77-30737

MCGHEE, J. R.
Frangible tube energy dissipation Patent
[NASA-CASE-XLA-00754] c15 N70-34850

Omnidirectional multiple impact landing system Patent
[NASA-CASE-XLA-09881] c31 N71-16085

MCGINNESS, H. D.
An improved suspension system for a wheel rolling on a flat track
[NASA-CASE-NPO-14395-1] c37 N79-12446

MCGOUGH, J. T.
Emergency escape system Patent
[NASA-CASE-IXS-07814] c15 N71-27067

MCHAFFIE, D. J.
Extensible cable support Patent
[NASA-CASE-IXP-07587] c15 N71-18701

MCHATTON, A. D.
Canister closing device Patent
[NASA-CASE-XLA-01446] c15 N71-21528

Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164

Amplifying ribbon extensometer
[NASA-CASE-LAR-11825-1] c35 N77-22449

Nozzle extraction process and handlemeter for measuring handle
[NASA-CASE-LAR-12147-1] c31 N79-11246

MCHERRY, T. F.
Miniature carbon dioxide sensor and methods
[NASA-CASE-MSC-13332-1] c14 N72-21408

MCHUGH, D. P.
Variable mixer propulsion cycle
[NASA-CASE-LEW-12917-1] c07 N78-18067

MCINTOSH, H. J.
Process for the leaching of AP from propellant
[NASA-CASE-NPO-14109-1] c28 N79-10227

MCKAY, R. A.
Combuster
[NASA-CASE-NPO-13954-1] c25 N79-11151

MCKEE, C. W.
Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282

MCKENNA, J. P., JR.
Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-MSC-12531-1] c35 N75-30504

MCKENNA, R. T.
Automatic character skew and spacing checking network
[NASA-CASE-GSC-11925-1] c33 N76-18353

MCKENZIE, R. L.
Diatomic infrared gasdynamic laser
[NASA-CASE-ARC-10370-1] c36 N75-31426

MCKEOWN, D.
Method for attaching a fused-quartz mirror to a conductive metal substrate
[NASA-CASE-NFS-23405-1] c26 N77-29260

MCKEVITT, P. X.
Swirling flow nozzle Patent
[NASA-CASE-IXP-03692] c28 N71-24321

MCKINNEY, R. L.
Self-calibrating displacement transducer Patent
[NASA-CASE-XLA-00781] c09 N71-22999

MCKINNON, R. A.
External liquid-spray cooling of turbine blades Patent
[NASA-CASE-XLE-00037] c28 N70-33372

MCLAIN, J. R.
Air bearing Patent
[NASA-CASE-IXP-01887] c15 N71-10617

MCLAUCHLAN, J. R.
Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent
[NASA-CASE-IXP-06957] c14 N71-21088

Light position locating system Patent
[NASA-CASE-IXP-01059] c23 N71-21821

MCLEAN, F. R.
Supersonic aircraft Patent
[NASA-CASE-XLA-04451] c02 N71-12243

MCLYMAN, C. W. T.
Inverter oscillator with voltage feedback
[NASA-CASE-NPO-10760] c09 N72-25254

Banded transformer cores
[NASA-CASE-NPO-11966-1] c33 N74-17928

MCLYMAN, W. T.
Phase substitution of spare converter for a failed one of parallel phase staggered converters
[NASA-CASE-NPO-13812-1] c33 N77-30365

MCHASTER, L. R.
Meteoroid detector
[NASA-CASE-LAR-10483-1] c14 N73-32327

MCHENAR, M. F.
Vapor phase growth of groups 3-5 compounds by hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043

MCHUTT, W. C.
Dual latching solenoid valve Patent
[NASA-CASE-IXS-05890] c09 N71-23191

MCHRONALD, A. D.
Thin film gauge
[NASA-CASE-NPO-10617-1] c35 N74-22095

MCHSTAY, J. J.
Apparatus including a plurality of spaced transformers for locating short circuits in cables
[NASA-CASE-KSC-10899-1] c33 N79-18193

MCHWILLIAMS, I. G.
Compact spectroradiometer
[NASA-CASE-HQN-10683] c14 N71-34389

Two color horizon sensor
[NASA-CASE-ERC-10174] c14 N72-25409

MEAD, D. C.
Variable frequency oscillator with temperature compensation Patent
[NASA-CASE-IXP-03916] c09 N71-28810

MEADOR, T. G., JR.
Light shield and cooling apparatus
[NASA-CASE-LAR-10089-1] c34 N74-23066

MEALY, G. R.
Electrostatic thruster with improved insulators Patent
[NASA-CASE-XLE-01902] c28 N71-10574

High voltage divider system Patent
[NASA-CASE-XLE-02008] c09 N71-21583

MEDCALF, W. A.
Gas filter mounting structure
[NASA-CASE-MSC-12297] c14 N72-23457

MEINTEL, A. J., JR.
Combined optical attitude and altitude indicating instrument Patent
[NASA-CASE-XLA-01907] c14 N71-23268

MEISENHOLDER, G. W.
Photosensitive device to detect bearing deviation Patent
[NASA-CASE-IXP-00438] c21 N70-35089

Roll attitude star sensor system Patent
[NASA-CASE-IXP-01307] c21 N70-41856

MEISSINGER, H. P.
Method of and device for determining the characteristics and flux distribution of micrometeorites
[NASA-CASE-NPO-12127-1] c91 N74-13130

MEISSNER, C. W., JR.
Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229

MELANED, L.
Angular velocity and acceleration measuring apparatus
[NASA-CASE-ERC-10292] c14 N72-25410

HELFI, L. T., JR.
Gas analyzer for bi-gaseous mixtures Patent
[NASA-CASE-XLA-01131] c14 N71-10774
Ionization vacuum gauge with all but the end of
the ion collector shielded Patent
[NASA-CASE-XLA-07424] c14 N71-18482

HELLARS, B.
Wideband heterodyne receiver for laser communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346

HELUGIN, J. P.
Technique for recovery of voice data from heat damaged magnetic tape
[NASA-CASE-HSC-14219-1] c32 N74-27612

HELVILLE, R. D. S.
Stark-effect modulation of CO2 laser with NE2D
[NASA-CASE-NPO-11945-1] c36 N76-18427

HENEFER, E. O.
Three-axis controller Patent
[NASA-CASE-XAC-01404] c05 N70-41581
Proportional controller Patent
[NASA-CASE-XAC-03392] c03 N70-41954

HENGES, M. J.
Precipitation detector Patent
[NASA-CASE-XLA-02619] c10 N71-26334
Dielectric molding apparatus Patent
[NASA-CASE-LAR-10121-1] c15 N71-26721

HEWICHELLI, V. J.
Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425
Electroexplosive device
[NASA-CASE-NPO-13858-1] c28 N79-11231

HENTZER, C. A.
Horn antenna having V-shaped corrugated slots
[NASA-CASE-LAR-11112-1] c32 N76-15330

HENZIES, E. T.
Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver
[NASA-CASE-NPO-11919-1] c35 N74-11284
Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585

HERLEN, M. H.
Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent
[NASA-CASE-NP-06957] c14 N71-21088

HERRICK, V. K.
Stabilization of gravity oriented satellites Patent
[NASA-CASE-XAC-01591] c31 N71-17729

HERBILL, J. T., IV
Apparatus for applying simulator g-forces to an arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597

MESSINGO, S. V.
Apparatus for positioning modular components on a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554

HESSNER, A.
System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519

HESTERLLO, L.
Apparatus and method for jet noise suppression
[NASA-CASE-LAR-11903-1] c07 N77-15036

HESZAROS, G.
Recovery of radiation damaged solar cells through thermal annealing
[NASA-CASE-IGS-04047-2] c03 N72-11062

HETCALFE, A. G.
Silicide coatings for refractory metals Patent
[NASA-CASE-XLE-10910] c18 N71-29040

HEZGER, A. E.
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer
[NASA-CASE-NMP-05231] c14 N73-28491

HEZLER, A. J.
Black-body furnace Patent
[NASA-CASE-XLE-01399] c33 N71-15625

HEYER, A. J., JR.
Modification and improvements to cooled blades Patent
[NASA-CASE-XLE-00092] c15 N70-33264
Aerial capsule emergency separation device Patent
[NASA-CASE-XLA-00115] c03 N70-33343
Space capsule Patent
[NASA-CASE-XLA-00149] c31 N70-37938

Vehicle parachute and equipment jettison system Patent
[NASA-CASE-XLA-00195] c02 N70-38009
Ablation structures Patent
[NASA-CASE-XNS-01816] c33 N71-15623
Space capsule Patent
[NASA-CASE-XLA-01332] c31 N71-15664

HEYER, J. A.
Altitude sensing device
[NASA-CASE-XNS-01994-1] c14 N72-17326

HEYER, J. P.
Time-division multiplexer Patent
[NASA-CASE-XNP-00431] c09 N70-38998

HEYER, K. A.
High-temperature, high-pressure spherical segment valve Patent
[NASA-CASE-XAC-00074] c15 N70-34817

HEYER, T. W.
Liquid reactant feeder for arc assisted metal reduction reactor
[NASA-CASE-NPO-14382-1] c25 N78-22186

HICALE, P. J.
Process for preparation of large-particle size monodisperse latexes
[NASA-CASE-NPS-25000-1] c25 N79-14171

MICHAEL, J. E.
Connector - Electrical
[NASA-CASE-XLA-01288] c09 N69-21470
Missile stage separation indicator and stage initiator Patent
[NASA-CASE-XLA-00791] c03 N70-39930

MICHAUD, R. B.
Urine collection device
[NASA-CASE-HSC-16433-1] c52 N78-27750

MICHEL, R. E.
Convoluting device for forming convolutions and the like Patent
[NASA-CASE-XNP-05297] c15 N71-23811

MICKA, E. E.
Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395
Automatic visual inspection system for microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396

MICKELSEN, W. B.
High-vacuum condenser tank for ion rocket tests Patent
[NASA-CASE-XLE-00168] c11 N70-33278
Electrostatic propulsion system with a direct nuclear electrogenerator Patent
[NASA-CASE-XLE-00818] c22 N70-34248

MIDDLETON, J. B.
Technique for extending the frequency range of digital dividers
[NASA-CASE-LAR-10730-1] c33 N74-10223

MIDDLETON, O.
Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441

MIDDLETON, R. L.
Cryogenic thermal insulation Patent
[NASA-CASE-NMP-05046] c33 N71-28892

MIDDLETON, W. D.
Supersonic aircraft Patent
[NASA-CASE-XLA-04451] c02 N71-12243

MIERTSCHIN, J. L.
Radio frequency filter device
[NASA-CASE-XLA-02609] c09 N72-25256

MIKSZAN, D. P.
Frequency shift keying apparatus Patent
[NASA-CASE-XGS-01537] c07 N71-23405

NIKULAS, M. H., JR.
Composite sandwich lattice structure
[NASA-CASE-LAR-11898-1] c24 N78-10214
Method of making a composite sandwich lattice structure
[NASA-CASE-LAR-11898-2] c24 N78-17149

MILDICE, J. W.
Light radiation direction indicator with a baffle of two parallel grids
[NASA-CASE-XNP-03930] c14 N69-24331

MILES, P. A.
Clear air turbulence detector
[NASA-CASE-NPS-21244-1] c36 N75-15028

MILES, R. T.
Oceanic wave measurement system
[NASA-CASE-NPS-23862-1] c48 N79-10689

MILKULLA, V.
Method for making a hot wire anemometer and product thereof

INVENTOR INDEX

MOECKEL, W. E.

[NASA-CASE-ARC-10900-1] c35 17-24454
HILLER, A. J.
 Binary to binary coded decimal converter
 [NASA-CASE-GSC-12044-1] c60 N78-17691
HILLER, C. E.
 Densitometer Patent
 [NASA-CASE-XLE-00688] c14 N70-41330
HILLER, C. G.
 Dispensing targets for ion beam particle generators
 [NASA-CASE-NPO-13112-1] c73 N74-26767
 Sampler of gas borne particles
 [NASA-CASE-NPO-13396-1] c35 N76-18401
 Indicator providing continuous indication of the presence of a specific pollutant in air
 [NASA-CASE-NPO-13474-1] c45 N76-21742
 Cryostat system for temperatures on the order of 2 deg K or less
 [NASA-CASE-NPO-13459-1] c31 N77-10229
 Solar energy collection system
 [NASA-CASE-NPO-13579-2] c44 N77-20565
 Low cost solar energy collection system
 [NASA-CASE-NPO-13579-3] c44 N77-20566
 Compact, high intensity arc lamp with internal magnetic field producing means
 [NASA-CASE-NPO-11510-1] c33 N77-21315
 Depressurization of arc lamps
 [NASA-CASE-NPO-10790-1] c33 N77-21316
 Arc control in compact arc lamps
 [NASA-CASE-NPO-10870-1] c33 N77-22386
 Internal combustion engine with electrostatic discharging fuels
 [NASA-CASE-NPO-13798-1] c37 N77-25535
 Low to high temperature energy conversion system
 [NASA-CASE-NPO-13510-1] c44 N77-32581
 Three-dimensional tracking solar energy concentrator and method for making same
 [NASA-CASE-NPO-13736-1] c44 N77-32583
 Portable linear-focused solar thermal energy collecting system
 [NASA-CASE-NPO-13734-1] c44 N78-10554
 Purging means and method for Xenon arc lamps
 [NASA-CASE-NPO-11978] c31 N78-17238
 Low cost solar energy collection system
 [NASA-CASE-NPO-13579-1] c44 N78-17460
 Underground mineral extraction
 [NASA-CASE-NPO-14140-1] c31 N78-24387
 Solar pond
 [NASA-CASE-NPO-13581-2] c44 N78-31525
 Primary reflector for solar energy collection systems
 [NASA-CASE-NPO-13579-4] c44 N79-14529
HILLER, D. P.
 Controllers Patent
 [NASA-CASE-XMS-07487] c15 N71-23255
HILLER, E. B.
 Compensating radiometer
 [NASA-CASE-XLA-04556] c14 N69-27484
 Heat sensing instrument Patent
 [NASA-CASE-XLA-01551] c14 N71-22989
 Spherical measurement device
 [NASA-CASE-XLA-06683] c14 N72-28436
HILLER, J. A., JR.
 Method of forming difunctional polyisobutylene
 [NASA-CASE-NPO-10893] c27 N73-22710
HILLER, J. C.
 Apparatus for detecting the amount of material in a resonant cavity container Patent
 [NASA-CASE-XNP-02500] c18 N71-27397
HILLER, J. E.
 Satellite interlace synchronization system
 [NASA-CASE-GSC-10390-1] c07 N72-11149
HILLER, J. G.
 Ultrasonic calibration device
 [NASA-CASE-LAR-11435-1] c35 N76-15432
HILLER, J. L.
 Boring bar drive mechanism Patent
 [NASA-CASE-XLA-03661] c15 N71-33518
HILLER, P. C.
 Low temperature aluminum alloy Patent
 [NASA-CASE-XNP-02786] c17 N71-20743
HILLIGAN, G. C.
 Digital memory sense amplifying means Patent
 [NASA-CASE-XNP-01012] c08 N71-28925
HILLIKEN, D. S.
 Film feed camera having a detent means Patent
 [NASA-CASE-LAR-10686] c14 N71-28935
HILLIKEN, J. F.
 Linear differential pressure sensor Patent

[NASA-CASE-XNP-01974] c14 N71-22752
HILLS, H. K.
 Tracking antenna system Patent
 [NASA-CASE-GSC-10553-1] c07 N71-19854
 Antenna array at focal plane of reflector with coupling network for beam switching Patent
 [NASA-CASE-GSC-10220-1] c07 N71-27233
HILLS, S. H.
 Transient-compensated SCR inverter
 [NASA-CASE-XLA-08507] c09 N69-39984
 Apparatus for microbiological sampling
 [NASA-CASE-LAR-11069-1] c35 N75-12272
 Automatic inoculating apparatus
 [NASA-CASE-LAR-11074-1] c51 N75-13502
 Automatic microbial transfer device
 [NASA-CASE-LAR-11354-1] c35 N75-27330
 Measurement of gas production of microorganisms
 [NASA-CASE-LAR-11326-1] c35 N75-33368
 Automated single-slide staining device
 [NASA-CASE-LAR-11649-1] c51 N77-27677
HILLY, J. J.
 Satellite despin device Patent
 [NASA-CASE-XNP-08523] c31 N71-20396
HINKIN, H. L.
 Liquid flow sight assembly Patent
 [NASA-CASE-XLE-02998] c14 N70-42074
HINOTT, P. O.
 Retrodirective optical system
 [NASA-CASE-XGS-04480] c16 N69-27491
 Retrodirective modulator Patent
 [NASA-CASE-GSC-10062] c14 N71-15605
HINTER, E. J.
 Method of peening and portable peening gun
 [NASA-CASE-NFS-23047-1] c37 N76-18454
HINTON, F. R.
 Window defect planar mapping technique
 [NASA-CASE-MSC-19442-1] c74 N77-10899
HINTON, U. O.
 Window defect planar mapping technique
 [NASA-CASE-MSC-19442-1] c74 N77-10899
HIRTICH, H.
 Hydrogen hollow cathode ion source
 [NASA-CASE-LEW-12940-1] c75 N79-10894
HIRTICH, H. J.
 Modification of the electrical and optical properties of polymers
 [NASA-CASE-LEW-13027-1] c27 N79-11216
HISERENTINO, R.
 Displacement probes with self-contained exciting medium
 [NASA-CASE-LAR-11690-1] c35 N78-31406
HITCHELL, D. K.
 Bore scope with variable angle scope
 [NASA-CASE-NFS-15162] c14 N72-32452
HITCHELL, F. R.
 Attitude control for spacecraft Patent
 [NASA-CASE-XNP-00294] c21 N70-36938
HITCHELL, G. A.
 Airflow control system for supersonic inlets
 [NASA-CASE-LEW-11188-1] c02 N74-20646
HITCHELL, W. H.
 Method and apparatus for detection and location of microleaks Patent
 [NASA-CASE-XNP-02307] c14 N71-10779
HITCHELL, V. H.
 Digital cardiometer system Patent
 [NASA-CASE-XMS-02399] c05 N71-22896
HITCHUM, L. L., JR.
 Collapsible loop antenna for space vehicle Patent
 [NASA-CASE-XNP-00437] c07 N70-40202
HIXSON, J. S.
 Ring wing tension vehicle Patent
 [NASA-CASE-XLA-04901] c31 N71-24315
HOACANIN, J.
 Ionene membrane separator
 [NASA-CASE-NPO-11091] c18 N72-22567
 Method of making hollow elastomeric bodies
 [NASA-CASE-NPO-13535-1] c37 N76-31524
 Process for manufacturing cannula
 [NASA-CASE-NPO-14073-1] c52 N78-25762
 Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
 [NASA-CASE-NPO-14657-1] c74 N79-17683
MOECKEL, W. E.
 Electro-thermal rocket Patent
 [NASA-CASE-XLE-00267] c28 N70-33356

HOEDE, L. W.

Wide range analog-to-digital converter with a variable gain amplifier
[NASA-CASE-NPO-11018] c08 N72-21200
Digital control and information system
[NASA-CASE-NPO-11016] c08 N72-31226

HORN, W. K.

Self-cycling fluid heater
[NASA-CASE-HSC-15567-1] c33 N73-16918

HOFFITT, P. L.

Image magnification adapter for cameras Patent
[NASA-CASE-INP-03844-1] c14 N71-26474

HOGAVERO, L. N.

System and method for tracking a signal source
[NASA-CASE-HQN-10880-1] c17 N78-17140

HOMAGHAN, P.

Flame retardant formulations and products produced therefrom
[NASA-CASE-HSC-16307-1] c25 N78-27232

HONDT, J. P.

Nuclear thermionic converter
[NASA-CASE-HNO-13121-1] c73 N77-18891

HONFORD, L. G., JR.

Radiometric temperature reference Patent
[NASA-CASE-HSC-13276-1] c14 N71-27058

Multifunction audio digitizer
[NASA-CASE-HSC-13855-1] c35 N74-17885

Digital communication system
[NASA-CASE-HSC-13912-1] c32 N74-30524

Binary concatenated coding system
[NASA-CASE-HSC-14082-1] c60 N76-23850

HONTETH, J. H.

Flow velocity and directional instrument
[NASA-CASE-LAR-10855-1] c14 N73-13415

HONTETH, L. K.

Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

HONTGOMERY, L. C.

Process for preparing sterile solid propellants Patent
[NASA-CASE-INP-01749] c27 N70-41897

Processing for producing a sterilized instrument Patent
[NASA-CASE-INP-09763] c14 N71-20461

HONTGOMERY, L. D.

Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

HONTOTA, L. C.

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[NASA-CASE-FRC-11024-1] c02 N79-17797

HOODY, D. L., JR.

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[NASA-CASE-ARC-10816-1] c35 N76-24525

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A prosthesis coupling
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HOORE, C. D.

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HOORE, H. D.

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HOORE, R. C.

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HOORE, R. L.

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Rotary actuator
[NASA-CASE-NPO-10680] c31 N73-14855

HOORE, T. J.

Welding blades to rotors
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Enhanced diffusion welding
[NASA-CASE-LEW-11388-1] c15 N73-32358

Production of hollow components for rolling element bearings by diffusion welding
[NASA-CASE-LEW-11026-1] c15 N73-33383

Apparatus for welding blades to rotors
[NASA-CASE-LEW-10533-2] c37 N74-11300

Diffusion welding in air
[NASA-CASE-LEW-11387-1] c37 N74-18128

HOORE, W. A.

Journal bearings
[NASA-CASE-LEW-11076-1] c37 N74-21061

Journal bearings
[NASA-CASE-LEW-11076-2] c37 N74-32921

Lubricated journal bearing
[NASA-CASE-LEW-11076-3] c37 N75-30562

Fluid journal bearings
[NASA-CASE-LEW-11076-4] c37 N76-15461

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Hydraulic transformer Patent
[NASA-CASE-HFS-20830] c15 N71-30028

HORDECAI, T. T.

Method of recording a gas flow pattern Patent
[NASA-CASE-INP-01779] c12 N71-20815

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Incremental motion drive system Patent
[NASA-CASE-INP-08897] c15 N71-17694

HORELLI, F. A.

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[NASA-CASE-INP-01749] c27 N70-41897

Processing for producing a sterilized instrument Patent
[NASA-CASE-INP-09763] c14 N71-20461

HOREHAN, O. S., III

Deformable bearing seat
[NASA-CASE-LEW-12527-1] c37 N77-32500

Bearing seat usable in a gas turbine engine
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MORGAN, I. T., JR.

Translatory shock absorber for attitude sensors
[NASA-CASE-HFS-22905-1] c19 N76-22284

MORGAN, J. E.

Condition sensor system and method
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MORGAN, W. C.

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MORISSETTE, S.

Junction range finder
[NASA-CASE-KSC-10108] c14 N73-25461

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MORRIS, J. P.

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[NASA-CASE-LEW-12050-1] c35 N77-32454

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[NASA-CASE-LEW-12038-3] c44 N78-25555

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MORSE, C. P.

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MORTENSEN, L. O.

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MOSEB, B. G.

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INVENTOR INDEX

HAINBER, J.

MOSIER, R.
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 screening means Patent
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 biopotential electrode
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 MOSIER, J. R.
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 MOSSOLANI, D. L.
 Rotary leveling base platform
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 MOUNTVALA, A. J.
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 preparing the same Patent
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 MOYER, X. W.
 Redundant actuating mechanism Patent
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 Delayed simultaneous release mechanism
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 MOYNIHAN, P. I.
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 MROZ, T. S.
 Direct heating surface combustor
 [NASA-CASE-LEW-11877-1] c34 N78-27357
 MUEBTER, P. P.
 Heat sterilizable patient ventilator
 [NASA-CASE-NPO-13313-1] c54 N75-27761
 MUELLER, R. L.
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 [NASA-CASE-NPO-13652-2] c37 N78-13441
 A solar array strip and a method for forming the
 same
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 Solar array strip and a method for forming the
 same
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 MUELLER, ROBERT L.
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 same
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 Patent
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 MULLER, K.
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 recessed anode
 [NASA-CASE-ARC-10266-1] c33 N75-29318
 MULLER, R. H.
 Method and apparatus for measuring web material
 wound on a reel
 [NASA-CASE-GSC-11902-1] c38 N77-17495
 MULLIKEN, R. P.
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 structures
 [NASA-CASE-LAR-10416-1] c24 N74-30001
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 transmission system Patent
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 [NASA-CASE-NPO-13105-1] c37 N74-21060
 MURPHY, D. W.
 Frangible link
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 A pressure limiting propellant actuating system
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 MURPHY, P. L.
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 MURPHY, J. P.
 All sky pointing attitude control system
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 MURPHY, W. J.
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 Rocket having barium release system to create
 ion clouds in the upper atmosphere
 [NASA-CASE-LAR-10670-2] c15 N74-27360
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 Concave grating spectrometer Patent
 [NASA-CASE-IGS-01036] c14 N70-40003
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 MURRETT, E. W.
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 Mechanical thermal motor
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 Spherical bearing
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 Aeroflexible structures
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 NAGAO, S.
 Circuit for automatic load sharing in parallel
 converter modules
 [NASA-CASE-NPO-14056-1] c33 N77-32402
 Overload protection system for power
 inverter
 [NASA-CASE-NPO-13872-1] c33 N78-10377
 Module failure isolation circuit for paralleled
 inverters
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 Redundant operation of counter modules
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 Improved base drive for paralleled inverter
 systems
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 NAGLE, W. J.
 Multi-cell battery protection system
 [NASA-CASE-LEW-12039-1] c44 N78-14625
 NAITICH, S.
 Method of producing crystalline materials
 [NASA-CASE-NPO-10440] c15 N72-21466
 NAINBER, J.
 High visibility air sea rescue panel
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High visibility air sea rescue panel
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NAKADA, H. P.
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NAKANURA, H. H.
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[NASA-CASE-LEW-10814-1] c28 N70-35422
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Ion thruster accelerator system Patent
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NARASHIMHAN, K. Y.
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[NASA-CASE-NPO-14191-1] c46 N79-20555
A system for detecting substructure microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556

NASH, D. O.
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Automatic fatigue test temperature programmer Patent
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Arbitrarily shaped model survey system Patent
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Carbon monoxide monitor
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NEAL, P. F.
Emergency escape system Patent
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NEALY, J. R.
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NEWCOMB, W. L.
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NICHOLS, J. J.
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NICHOLS, R. R.
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Dual cycle aircraft turbine engine
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Solar vane actuator Patent
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NICKS, O. W.
Quiet jet transport aircraft
[NASA-CASE-LAR-11087-1] c02 N73-26008

INVENTOR INDEX

OGLE, J. S.

NICOL, W. S.
Vapor deposition apparatus
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NIEDRA, J. M.
Pulse coupling circuit
[NASA-CASE-LEW-10433-1] c09 N72-22197

NIEDZWIECKI, R. W.
Swirl can primary combustor
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Controlled separation combustor
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[NASA-CASE-XNP-10475] c15 N71-24679

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NORMAN, R. H.
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Zero torque gear head wrench
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NOVOTNY, J. E.
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OBLES, H. D.
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Apparatus for supplying conditioned air at a substantially constant temperature and humidity
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OBRIEN, D. E., III
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[NASA-CASE-MSC-14143-1] c77 N75-20139

OCONEOR, J. W.
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Fast opening diaphragm Patent
[NASA-CASE-XLA-03660] c15 N71-21060
Measurement of time differences between luminous events Patent
[NASA-CASE-XLA-01987] c23 N71-23976

OFARRELL, H. W.
Solar cell module assembly jig
[NASA-CASE-XGS-00829-1] c44 N79-19447

OFFIK, W. G.
Emergency escape system Patent
[NASA-CASE-XKS-02342] c05 N71-11199

OGDEN, H. F.
Aerodynamic measuring device Patent
[NASA-CASE-XLA-00481] c14 N70-36824
Check valve assembly for a probe Patent
[NASA-CASE-XLA-00128] c15 N70-37925

OGDEN, H. R.
Low temperature aluminum alloy Patent
[NASA-CASE-XNP-02786] c17 N71-20743

OGLE, J. S.
Whole body measurement systems
[NASA-CASE-MSC-13972-1] c52 N74-10975

OHLSON, J. E.

INVENTOR INDEX

OHLSON, J. E.
System for interference signal nulling by
polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982
Conical scan tracking system employing a large
antenna
[NASA-CASE-NPO-14009-1] c32 N79-13214
OKANE, J. E.
Pressure suit tie-down mechanism Patent
[NASA-CASE-XMS-00784] c05 N71-12335
OKAWA, H. C.
High-Q bandpass resonators utilizing bandstop
resonator pairs
[NASA-CASE-GSC-10990-1] c09 N73-26195
OKEEFE, W. J.
Head-up attitude display
[NASA-CASE-ERC-10392] c21 N73-14692
OKELLY, K. P.
Method of fluxless brazing and diffusion bonding
of aluminum containing components
[NASA-CASE-MSC-14435-1] c37 N76-18455
OLCOTT, J. W.
Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930
OLDRIVE, R. E.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288
Method of making fiber reinforced metallic
composites Patent
[NASA-CASE-XLE-00231] c17 N70-38198
Tantalum modified ferritic iron base alloys
[NASA-CASE-LEW-12095-1] c26 N78-18182
OLIVER, G. D.
Scanning nozzle plating system
[NASA-CASE-NPO-11758-1] c31 N74-23065
OLIVER, R. E.
Multiple reflection conical microwave antenna
[NASA-CASE-NPO-11661] c07 N73-14130
OLIVER, R. L.
Apparatus for applying cover slides
[NASA-CASE-NPO-10575] c03 N72-25019
OLIVIE, C. V.
Multi-channel rotating optical interface for
data transmission
[NASA-CASE-NPO-14066-1] c44 N79-20496
OLLENDORF, S.
Structural heat pipe
[NASA-CASE-GSC-11619-1] c34 N75-12222
Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380
OLLYNG, E. H.
Radial module space station Patent
[NASA-CASE-XMS-01906] c31 N70-41373
OLSAKY, H. J.
Laser camera and diffusion filter therefore Patent
[NASA-CASE-NPO-10417] c16 N71-33410
OLSEN, W. A., JR.
Reduced gravity liquid configuration simulator
[NASA-CASE-XLE-02624] c12 N69-39988
Hot wire liquid level detector for cryogenic
fluids Patent
[NASA-CASE-XLE-00454] c23 N71-17802
OLSON, W. T.
Inlet deflector for jet engines Patent
[NASA-CASE-XLE-00388] c28 N70-34788
OLTMANS, D. A.
Matched thermistors for microwave power meters
Patent
[NASA-CASE-NPO-10348] c10 N71-12554
ONEIL, R. L.
Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509
ONEILL, R. W.
Monostable multivibrator with complementary NOR
gates Patent
[NASA-CASE-MSC-13492-1] c10 N71-28860
Peak holding circuit for extremely narrow pulses
[NASA-CASE-MSC-14129-1] c33 N75-18479
OREILLY, W. J.
Portable environmental control system Patent
[NASA-CASE-XMS-09632-1] c05 N71-11203
OREN, V. C.
Fastener stretcher
[NASA-CASE-GSC-11149-1] c15 N73-30457
ORILLION, A. G.
Personal propulsion unit Patent
[NASA-CASE-MPS-20130] c28 N71-27585
ORLIK, P. W.
Pressure seal Patent

[NASA-CASE-NPO-10796] c15 N71-27068
ORLOFF, K. L.
Combined dual scatter, local oscillator laser
Doppler velocimeter
[NASA-CASE-ARC-10642-1] c36 N76-14447
ORNISTON, R. A.
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029
ORNER, J. W.
Method and apparatus for detecting gross leaks
Patent
[NASA-CASE-ERC-10033] c14 N71-26672
OROUHEH, T. E., JR.
Sealing member and combination thereof and
method of producing said sealing member Patent
[NASA-CASE-XMS-01625] c15 N71-23022
ORTH, R. W.
Process for producing dispersion strengthened
nickel with aluminum Patent
[NASA-CASE-XLE-06969] c17 N71-24142
Method for alleviating thermal stress damage in
laminates
[NASA-CASE-LEW-12493-1] c24 N78-22163
OSHER, J. V.
Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338
OSHUNDSOHN, J.
Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654
OSTROFF, A. J.
Star image motion compensator
[NASA-CASE-LAR-10523-1] c14 N72-22444
OSTROFF, J.
Rotary actuator
[NASA-CASE-NPO-10244] c15 N72-26371
OSULLIVAN, W. J., JR.
Method and apparatus for shock protection Patent
[NASA-CASE-XLA-00482] c15 N70-36409
Self supporting space vehicle Patent
[NASA-CASE-XLA-00117] c31 N71-17680
Thermal control wall panel Patent
[NASA-CASE-XLA-01243] c33 N71-22792
Thermal control panel Patent
[NASA-CASE-XLA-07728] c33 N71-22890
OTHMAN, T. E.
Safety-type locking pin
[NASA-CASE-MPS-18495] c15 N72-11385
OTOSHI, T. Y.
Rotary vane attenuator wherein rotor has
orthogonally disposed resistive and dielectric
cards
[NASA-CASE-NPO-11418-1] c14 N73-13420
OTTO, G. H.
Synthesis of superconducting compounds by
explosive compaction of powders
[NASA-CASE-MPS-20861-1] c18 N73-32437
OUTLAW, R. A.
In situ transfer standard for ultrahigh vacuum
gage calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092
OWENS, L. J.
Magnetic electrical connectors for biomedical
percutaneous implants
[NASA-CASE-KSC-11030-1] c52 N77-25772
Rotational joint assembly for the prosthetic leg
[NASA-CASE-KSC-11004-1] c54 N77-30749
A prosthesis coupling
[NASA-CASE-KSC-11069-1] c54 N78-22721
Ocean thermal plant
[NASA-CASE-KSC-11034-1] c44 N78-32542
Illumination control apparatus for compensating
solar light
[NASA-CASE-KSC-11010-1] c74 N79-12890

P

PACALA, T. J.
Charge transfer reaction laser with
preionization means
[NASA-CASE-NPO-13945-1] c36 N78-27402
Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336
PACE, G. D., JR.
Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951
PACIOREK, K. J. L.
Heat resistant polymers of oxidized
styrylphosphine
[NASA-CASE-MSC-14903-2] c27 N78-25216

INVENTOR INDEX

PASIERB, E. F.

Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-3] c27 N78-25217

Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N78-32256

PACKARD, R. D.
Semiconductor surface protection material
[NASA-CASE-ERC-10339-1] c18 N73-30532

PACKER, R. W.
Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383

Variable contour securing system
[NASA-CASE-MSC-16270-1] c37 N78-27423

PADILLA, D.
Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456

PAIK, S. F.
Parametric microwave noise generator Patent
[NASA-CASE-XER-11019] c09 N71-23598

PAIK, W. W.
Apparatus for recovering matter adhered to a host surface
[NASA-CASE-NPO-11213] c15 N73-20514

PAINTER, J. E.
Anti-multipath digital signal detector
[NASA-CASE-LAR-11827-1] c32 N77-10392

PALANDATI, C. F., JR.
Prevention of pressure build-up in electrochemical cells Patent
[NASA-CASE-IGS-01419] c03 N70-41864

PALMER, E. I.
Apparatus for testing a pressure responsive instrument Patent
[NASA-CASE-XNP-04134] c14 N71-23755

PALSINGH, S.
Anti-gravity device
[NASA-CASE-MFS-22758-1] c70 N75-26789

PAN, F. H.
A dc-coupled noninverting one-shot Patent
[NASA-CASE-XNP-09450] c10 N71-18723

PAOLINI, J. J.
Full flow with shut off and selective drainage control valve Patent application
[NASA-CASE-ERC-10208] c15 N70-10867

PAPPELL, S. S.
Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent
[NASA-CASE-XLE-01512] c12 N70-40124

Liquid storage tank venting device for zero gravity environment Patent
[NASA-CASE-XLE-01449] c15 N70-41646

Capacitor and method of making same Patent
[NASA-CASE-LEW-10364-1] c09 N71-13522

Fluid dispensing apparatus and method Patent
[NASA-CASE-XLE-01182] c27 N71-15635

PARDON, C. T.
Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245

PARESCHE, F.
Resistive anode image converter
[NASA-CASE-HQN-10876-1] c33 N76-27473

PARK, J. J.
Method of making tubes Patent
[NASA-CASE-XGS-04175] c15 N71-18579

PARKER, D. L.
Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-MFS-23315-1] c76 N78-24950

PARKER, G. L.
Elimination of frequency shift in a multiplex communication system Patent
[NASA-CASE-XNP-01306] c07 N71-20814

High speed phase detector Patent
[NASA-CASE-XNP-01306-2] c09 N71-24596

Optical binocular scanning apparatus
[NASA-CASE-NPO-11002] c14 N72-22441

Hydraulic drain means for servo-systems
[NASA-CASE-NPO-10316-1] c37 N77-22479

PARKER, J. A.
Intumescent paints Patent
[NASA-CASE-ARC-10099-1] c18 N71-15469

Modified polyurethane foams for fuel-fire Patent
[NASA-CASE-ARC-10098-1] c06 N71-24739

Flexible fire retardant foam
[NASA-CASE-ARC-10180-1] c28 N72-20767

Intumescent composition, foamed product prepared therewith, and process for making same
[NASA-CASE-ARC-10304-1] c18 N73-26572

Flexible fire retardant polyisocyanate modified neoprene foam
[NASA-CASE-ARC-10180-1] c27 N74-12814

Chromato-fluorographic drug detector
[NASA-CASE-ARC-10633-1] c25 N74-26947

Intumescent composition, foamed product prepared therewith and process for making same
[NASA-CASE-ARC-10304-2] c27 N74-27037

Fiber modified polyurethane foam for ballistic protection
[NASA-CASE-ARC-10714-1] c27 N76-15310

Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

Honeycomb-laminate composite structure
[NASA-CASE-ARC-10913-1] c24 N78-15180

Low density bismaleimide-carbon microballoon composites
[NASA-CASE-ARC-11040-2] c24 N78-27184

Low density bismaleimide-carbon microballoon composites
[NASA-CASE-ARC-11040-1] c24 N79-16915

PARKER, L. C.
Safe-arm initiator Patent
[NASA-CASE-LAR-10372] c09 N71-18599

PARKER, O. J.
Despin weight release Patent
[NASA-CASE-XLA-00679] c15 N70-38601

Spacecraft separation system for spinning vehicles and/or payloads Patent
[NASA-CASE-XLA-02132] c31 N71-10582

Flared tube strainer
[NASA-CASE-XLA-05056] c15 N72-11389

PARKER, R. J.
Method of improving the reliability of a rolling element system Patent
[NASA-CASE-XLE-02999] c15 N71-16052

Low mass rolling element for bearings
[NASA-CASE-LEW-11087-1] c15 N73-30458

Method of making rolling element bearings
[NASA-CASE-LEW-11087-2] c37 N74-15128

Hollow rolling element bearings
[NASA-CASE-LEW-11087-3] c37 N74-21064

PARNLEY, R. T.
Aerodynamic protection for space flight vehicles Patent
[NASA-CASE-XNP-02507] c31 N71-17679

PARR, R. A.
Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown
[NASA-CASE-MFS-23816-1] c26 N79-16943

PARRA, G. T.
Angle detector
[NASA-CASE-ARC-11036-1] c35 N78-32395

PARSONS, W. E.
Electronic checkout system for space vehicles Patent
[NASA-CASE-XKS-08012-2] c31 N71-15566

Percutaneous connector device
[NASA-CASE-KSC-10849-1] c52 N77-14738

PARTHASARATHY, S. P.
A system for plotting subsoil structure and method therefor
[NASA-CASE-NPO-14191-1] c46 N79-20555

A system for detecting substructure microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556

System and method for obtaining wide screen Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856

PARTSCH, V. H.
Purge device for thrust engines Patent
[NASA-CASE-XMS-04826] c28 N71-28849

PASCIUTTI, E. R.
Protection for energy conversion systems
[NASA-CASE-XGS-04808] c03 N69-25146

Inverter with means for base current shaping for sweeping charge carriers from base region Patent
[NASA-CASE-XGS-06226] c10 N71-25950

A dc to ac to dc converter having transistor synchronous rectifiers
[NASA-CASE-GSC-11126-1] c09 N72-25253

PASIERB, E. F.
GaAs solar detector using manganese as a doping agent Patent

- [NASA-CASE-INP-01328] c26 N71-18064
- PASSMAN, H. H.
Heat conductive resiliently compressible structure for space electronics package modules Patent
[NASA-CASE-MSC-12389] c33 N71-29052
- PATE, W. E.
Color perception tester
[NASA-CASE-KSC-10278] c05 N72-16015
- PATEL, B. C.
A method and technique for installing light-weight fragile, high-temperature fiber insulation
[NASA-CASE-MSC-16934-1] c24 N79-16923
- PATON, W. J.
Flammability test chamber Patent
[NASA-CASE-KSC-10126] c11 N71-24985
- PATTEE, H. E.
Attaching of strain gages to substrates
[NASA-CASE-FRC-10093-1] c35 N78-18393
- PATTEE, C. W.
Method and apparatus for attaching physiological monitoring electrodes Patent
[NASA-CASE-IPR-07658-1] c05 N71-26293
- PATTERSON, J. C., JR.
Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001
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Synthesis of siloxane-containing epoxy polymers Patent
[NASA-CASE-MFS-13994-1] c06 N71-11240
Siloxane containing epoxide compounds
[NASA-CASE-MFS-13994-2] c06 N72-25148
Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups
[NASA-CASE-MFS-20979] c06 N72-25151
Polymerizable disilanolis having in-chain perfluoroalkyl groups
[NASA-CASE-MFS-20979-2] c06 N73-32030
- PAULI, F. A.
Attitude controls for VTOL aircraft Patent
[NASA-CASE-IAC-08972] c02 N71-20570
- PAULOVICH, J.
Apparatus for measuring current flow Patent
[NASA-CASE-IGS-02439] c18 N71-19431
Coulometer and third electrode battery charging circuit Patent
[NASA-CASE-GSC-10487-1] c03 N71-24719
- PAULI, S.
Variable frequency magnetic multivibrator Patent
[NASA-CASE-IGS-00458] c09 N70-38604
Variable frequency magnetic multivibrator Patent
[NASA-CASE-IGS-00131] c09 N70-38995
- PAVLICS, F.
Resilient wheel Patent
[NASA-CASE-MFS-13929] c15 N71-27091
- PAWLK, E. V.
Plasma device feed system Patent
[NASA-CASE-XLE-02902] c25 N71-21694
Ion thruster with a combination keeper electrode and electron baffle
[NASA-CASE-NPO-11880] c28 N73-24783
Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466
- PEARSON, A. O.
Measurement of gas production of microorganisms
[NASA-CASE-LAR-11326-1] c35 N75-33368
- PECHMAN, A.
Two-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-1] c27 N76-22377
Three-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-2] c27 N76-23426
- PECK, S. E.
Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297
- PECKHAM, V. A., JR.
Sample collecting impact bit Patent
[NASA-CASE-INP-01412] c15 N70-42034
- PEDERSON, C. W.
Low distortion automatic phase control circuit
[NASA-CASE-MFS-21671-1] c33 N74-22885
- PEELGREEN, H. L.
Shell side liquid metal boiler
[NASA-CASE-NPO-10831] c33 N72-20915
- PERE, C. R.
Connector strips-positive, negative and T tabs
[NASA-CASE-IGS-01395] c03 N69-21539
- PERGEM, C. D.
Multiple in-line docking capability for rotating space stations
[NASA-CASE-MFS-20855-1] c15 N77-10112
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Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154
- PELLERIN, C. J., JR.
Two axis fluxgate magnetometer Patent
[NASA-CASE-GSC-10441-1] c14 N71-27325
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Varactor high level mixer
[NASA-CASE-IGS-02171] c09 N69-24324
- PEOPLES, J. A.
Multiway vortex valve system Patent
[NASA-CASE-INP-04709] c15 N71-15609
- PERKINS, G. S.
Detenting servomotor Patent
[NASA-CASE-INP-06936] c15 N71-24695
Ball screw linear actuator
[NASA-CASE-NPO-11222] c15 N72-25456
Improved nozzle for use with abrasive and/or corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466
Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N79-14526
- PERKINS, B.
System for imposing directional stability on a rocket-propelled vehicle
[NASA-CASE-MFS-21311-1] c20 N76-21275
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Cryogenic insulation system Patent
[NASA-CASE-XLE-04222] c23 N71-22881
Insulation system Patent
[NASA-CASE-XLE-02647] c18 N71-23658
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[NASA-CASE-NPO-10351] c08 N71-12503
Binary sequence detector Patent
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Digital function generator
[NASA-CASE-NPO-11104] c08 N72-22165
Feedback shift register with states decomposed into cycles of equal length
[NASA-CASE-NPO-11082] c08 N72-22167
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[NASA-CASE-NPO-11406] c08 N73-12175
A m-ary linear feedback shift register with binary logic
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Nonlinear nonsingular feedback shift registers
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[NASA-CASE-XLE-01716] c09 N70-40234
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[NASA-CASE-MFS-21415-1] c52 N74-20728
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[NASA-CASE-INP-06515] c14 N71-23227
- PERRY, J. C.
A system for displaying at a remote station data generated at a central station and for powering the remote station from the central station
[NASA-CASE-GSC-12411-1] c33 N79-14308
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Optical conversion method
[NASA-CASE-MSC-12618-1] c74 N78-17865
- PERSON, J. K.
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[NASA-CASE-NPO-13652-2] c37 N78-13441
- PESEK, C. T.
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[NASA-CASE-IMS-02184] c15 N71-20813
Circuit board package with wedge shaped covers
[NASA-CASE-MFS-21919-1] c10 N73-25243
- PESHAN, G. J.
Shock absorbing support and restraint means Patent
[NASA-CASE-IMS-01240] c05 N70-35152

INVENTOR INDEX

PIASECKI, L. R.

PETERS, D. A.
Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029

PETERS, H. E.
Atomic standard with variable storage volume
[NASA-CASE-GSC-11895-1] c35 N76-15436

PETERS, L. JR.
Born antenna having V-shaped corrugated slots
[NASA-CASE-LAR-11112-1] c32 N76-15330

PETERS, P. W.
Germanium coated microbridge and method
[NASA-CASE-HFS-23274-1] c33 N78-13320

PETERS, R. L.
CRT blanking and brightness control circuit
[NASA-CASE-KSC-10647-1] c10 N72-31273

PETERS, R. W.
Two component bearing Patent
[NASA-CASE-XLA-00013] c15 N71-29136

PETERSEN, H. L.
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[NASA-CASE-HSC-14240-1] c33 N75-14957

PETERSEN, H. W.
Adjustable mount for a trihedral mirror Patent
[NASA-CASE-XNP-08907] c23 N71-29123

PETERSON, E. W.
Canopus detector including automotive gain
control of photomultiplier tube Patent
[NASA-CASE-XNP-03914] c21 N71-10771

PETERSON, H. C.
Ultraviolet atomic emission detector
[NASA-CASE-HQM-10756-1] c14 N72-25428

PETERSON, H. E., JR.
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[NASA-CASE-XGS-00587] c15 N70-35087

PETERSON, P. D.
Portable environmental control system Patent
[NASA-CASE-XHS-09632-1] c05 N71-11203

PETERSON, S. T.
Meteoroid detector
[NASA-CASE-LAR-10483-1] c14 N73-32327

PETERSON, V. S.
Flow angle sensor and read out system Patent
[NASA-CASE-XLE-04503] c14 N71-24864
Solid state remote circuit selector switch
[NASA-CASE-XLE-10387] c09 N72-22201
Low level signal limiter
[NASA-CASE-XLE-04791] c32 N74-22096
Fine particulate capture device
[NASA-CASE-XLE-11583-1] c35 N79-17192

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[NASA-CASE-XNP-05219] c16 N71-15550
Superconducting magnet Patent
[NASA-CASE-XNP-06503] c23 N71-29049

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for a phase-lock loop providing frequency
preset capabilities Patent
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PETERSEN, H. E.
Medical subject monitoring systems
[NASA-CASE-HSC-14180-1] c52 N76-14757

PETRASEK, D. W.
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[NASA-CASE-XLE-02428] c17 N70-33288
Method of making fiber reinforced metallic
composites Patent
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Reinforced metallic composites Patent
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Method of making fiber composites
[NASA-CASE-XLE-10424-2-2] c18 N72-25539

PETRICK, E. H.
Variable thrust ion engine utilizing thermally
decomposable solid fuel Patent
[NASA-CASE-XNP-00923] c28 N70-36802

PETYNIA, W. W.
Space and atmospheric reentry vehicle Patent
[NASA-CASE-XGS-00260] c31 N70-37924
Space vehicle system
[NASA-CASE-HSC-12561-1] c18 N76-17185

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Wideband heterodyne receiver for laser
communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346

PREDIRTY, G. F.
Method and apparatus for shock protection Patent
[NASA-CASE-XLA-00482] c15 N70-36409

Isidazopyrrolone/imide copolymers Patent
[NASA-CASE-XLA-08802] c06 N71-11238

Dosimeter for high levels of absorbed radiation
Patent
[NASA-CASE-XLA-03645] c14 N71-20430

Solid state thermal control polymer coating
Patent
[NASA-CASE-XLA-01745] c33 N71-28903

PPAFF, H.
Swivel support for gas bearings Patent
[NASA-CASE-XNP-07808] c15 N71-23812

PPIFFNER, H. J.
Bootstrap unloader Patent
[NASA-CASE-XNP-09768] c09 N71-12516

PFLEGER, R. O.
Spherical shield Patent
[NASA-CASE-XNP-01855] c15 N71-28937

PHILIPP, W. H.
Selective nickel deposition
[NASA-CASE-XLE-10965-1] c15 N72-25452
Production of pure metals
[NASA-CASE-XLE-10906-1] c25 N74-30502
Process for making anhydrous metal halides
[NASA-CASE-XLE-11860-1] c37 N76-18458
In situ self cross-linking of polyvinyl alcohol
battery separators
[NASA-CASE-XLE-12972-1] c23 N78-22157
Method of cross-linking polyvinyl alcohol and
other water soluble resins
[NASA-CASE-XLE-13103-1] c25 N79-14172
Cross-linked polyvinyl alcohol and method of
making same
[NASA-CASE-XLE-13101-1] c25 N79-14173
In-situ cross-linking of polyvinyl alcohol
[NASA-CASE-XLE-13135-1] c25 N79-14174

PHILLIPS, A. R.
Technique of duplicating fragile core
[NASA-CASE-XLA-07829] c15 N72-16329

PHILLIPS, B. L. S.
File card marker Patent
[NASA-CASE-XLA-02705] c08 N71-15908

PHILLIPS, E. C., JR.
Method of forming a wick for a heat pipe
[NASA-CASE-NPO-13391-1] c34 N76-27515

PHILLIPS, W. H.
Variable-geometry winged reentry vehicle Patent
[NASA-CASE-XLA-00241] c31 N70-37986
Station keeping of a gravity gradient stabilized
satellite Patent
[NASA-CASE-XLA-03132] c31 N71-22969

PHILLIPS, W. H.
Shell side liquid metal boiler
[NASA-CASE-NPO-10831] c33 N72-20915
Cermat composition and method of fabrication
[NASA-CASE-NPO-13120-1] c27 N76-15311
High temperature oxidation resistant cermet
compositions
[NASA-CASE-NPO-13666-1] c27 N77-13217
Improved nozzle for use with abrasive and/or
corrosive materials
[NASA-CASE-NPO-13823-1] c37 N77-17466
Nuclear thermionic converter
[NASA-CASE-NPO-13121-1] c73 N77-18891
High temperature resistant cermet and ceramic
compositions
[NASA-CASE-NPO-13690-1] c27 N78-19302
High temperature resistant cermet and ceramic
compositions
[NASA-CASE-NPO-13690-3] c27 N78-25219
High temperature resistant cermet and ceramic
compositions
[NASA-CASE-NPO-13690-2] c27 N79-14213

PHILIEGE, G. A., JR.
Separation simulator Patent
[NASA-CASE-XKS-04631] c10 N71-23663
Internal work light Patent
[NASA-CASE-XKS-05932] c09 N71-26787
Universal environment package with sectional
component housing
[NASA-CASE-KSC-10031] c15 N72-22486
Pressurized lighting system
[NASA-CASE-KSC-10644] c09 N72-27227
Character indicating display device
[NASA-CASE-XKS-00348] c09 N73-14215

PIASECKI, L. R.
Apparatus and method for control of a solid
fueled rocket vehicle Patent
[NASA-CASE-XNP-00217] c28 N70-38181

PICCIOLO, G. L.
 Flavin coenzyme assay
 [NASA-CASE-GSC-10565-1] c06 N72-25149
 Method of detecting and counting bacteria in
 body fluids
 [NASA-CASE-GSC-11092-2] c04 N73-27052
 Automatic instrument for chemical processing to
 detect microorganism in biological samples by
 measuring light reactions
 [NASA-CASE-GSC-11169-2] c05 N73-32011
 Method of detecting and counting bacteria
 [NASA-CASE-GSC-11917-2] c51 N76-29891
 Application of luciferase assay for ATP to
 antimicrobial drug susceptibility
 [NASA-CASE-GSC-12039-1] c51 N77-22794
 Rapid, quantitative determination of bacteria in
 water
 [NASA-CASE-GSC-12158-1] c51 N78-22585
 Method and apparatus for continuous measurement
 of bacterial content of aqueous samples
 [NASA-CASE-HSC-16779-1] c51 N78-22586
 Determination of antimicrobial susceptibilities
 on infected urines without isolation
 [NASA-CASE-GSC-12046-1] c52 N79-14750

PIERCE, R. H.
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 [NASA-CASE-IGS-03556] c27 N70-35534

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 Charge injection method and apparatus of
 producing large area electrets
 [NASA-CASE-HFS-23186-2] c24 N78-25137

PINCKNEY, K. E.
 System for monitoring the presence of neutrals
 in a stream of ions Patent
 [NASA-CASE-INP-02592] c24 N71-20518

PINCKNEY, S. Z.
 Static pressure probe
 [NASA-CASE-LAR-11552-1] c35 N76-14429

PINCUS, B. E.
 Scanning aspect sensor employing an apertured
 disc and a commutator
 [NASA-CASE-IGS-08266] c14 N69-27432

PINKEL, I. I.
 Reduced gravity liquid configuration simulator
 [NASA-CASE-XLE-02624] c12 N69-39988

PINSON, G. T.
 Guide for a typewriter
 [NASA-CASE-HFS-15218-1] c37 N77-19457

PIPPEL, D. L.
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 [NASA-CASE-HSC-12178-1] c09 N71-13518

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 Transverse piezoresistance and pinch effect
 electromechanical transducers Patent
 [NASA-CASE-ERC-10088] c26 N71-25490

PITTS, D. E.
 Method for manufacturing mirrors in zero gravity
 environment
 [NASA-CASE-HSC-12611-1] c12 N76-15189

PITTS, R. L.
 Electronic strain-level counter
 [NASA-CASE-LAR-10756-1] c32 N73-26910

PITTS, W. C.
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 [NASA-CASE-YAC-04886-1] c14 N71-20439

PIVIROTTO, T. J.
 Inert gas metallic vapor laser
 [NASA-CASE-NPO-13449-1] c36 N75-32441

PIZZECK, D. E.
 Connector
 [NASA-CASE-LAR-11709-1] c37 N76-27567

PLAKAS, C. J.
 Firefly pump-metering system
 [NASA-CASE-GSC-10218-1] c15 N72-21465

PLANCHON, J. A., JR.
 Conically shaped cavity radiometer with a dual
 purpose cone winding Patent
 [NASA-CASE-XNP-09701] c14 N71-26475

PLANKOWSKI, S. C.
 Traversing probe Patent
 [NASA-CASE-YPR-02007] c12 N71-24692

PLATT, P. K.
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 [NASA-CASE-IGS-02441] c15 N70-41629

PLAZEK, D. J.
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 recovery Patent
 [NASA-CASE-XLE-01481] c14 N71-10781

PLEASANTS, J. E.
 Inflatable support structure Patent
 [NASA-CASE-XLA-01731] c32 N71-21045
 Vortex breech high pressure gas generator
 [NASA-CASE-LAR-10549-1] c31 N73-13898

PLITT, K. F.
 Spacecraft battery seals
 [NASA-CASE-IGS-03864] c15 N69-24320

PODGORSKI, T. J.
 Method of forming shrink-fit compression seal
 [NASA-CASE-LAR-11563-1] c37 N77-23482

POHL, G. D.
 Water quality monitoring system
 [NASA-CASE-HSC-16778-1] c51 N78-22589

POBSCHER, R. L.
 Ion thruster
 [NASA-CASE-LEW-10770-1] c28 N72-22770

POGORZELSKI, F. S.
 Apparatus for welding sheet material
 [NASA-CASE-XMS-01330] c37 N75-27376

POHL, H. O.
 Two-step rocket engine bipropellant valve Patent
 [NASA-CASE-XMS-04890-1] c15 N70-22192

POHL, J. G.
 Three-dimensional tracking solar energy
 concentrator and method for making same
 [NASA-CASE-NPO-13736-1] c44 N77-32583
 Portable linear-focused solar thermal energy
 collecting system
 [NASA-CASE-NPO-13734-1] c44 N78-10554

POHN, A. V.
 Magnetometer with a miniature transducer and
 automatic scanning
 [NASA-CASE-LAR-11617-2] c35 N78-32397

POLHANS, E. C.
 Variable sweep wing configuration Patent
 [NASA-CASE-XLA-00230] c02 N70-33255
 Variable sweep aircraft wing Patent
 [NASA-CASE-XLA-00350] c02 N70-38011
 Variable sweep aircraft Patent
 [NASA-CASE-XLA-03659] c02 N71-11041

POLHEUS, J. T.
 A signal attenuator
 [NASA-CASE-PRC-11012-1] c33 N78-28339
 Condition sensor system and method
 [NASA-CASE-HSC-14805-1] c54 N78-32720

POLLACK, I.
 Etching of aluminum for bonding Patent
 [NASA-CASE-INP-02303] c17 N71-23828
 Dye penetrant for surfaces subsequently
 contacted by liquid oxygen Patent
 [NASA-CASE-INP-02221] c18 N71-27170

POLLACK, J. L.
 High powered arc electrodes
 [NASA-CASE-LEW-11162-1] c33 N74-12913

POLLARD, E. A.
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 [NASA-CASE-HMS-04170] c05 N71-22748

POLLOCK, G. E.
 Gas chromatograph injection system
 [NASA-CASE-ARC-10344-1] c14 N72-21433
 Gas chromatograph injection system
 [NASA-CASE-ARC-10344-2] c35 N75-26334

POLSTORFF, W. K.
 Simulator method and apparatus for practicing
 the mating of an observer-controlled object
 with a target
 [NASA-CASE-HFS-23052-2] c74 N79-13855

POOL, S. L.
 Medical subject monitoring systems
 [NASA-CASE-HSC-14180-1] c52 N76-14757

POPE, A. H.
 Zero gravity separator Patent
 [NASA-CASE-XLE-00586] c15 N71-15968

POPE, J. H.
 Miniature ingestible telemeter devices to
 measure deep-body temperature
 [NASA-CASE-ARC-10583-1] c52 N76-29894

POPE, W. L.
 Low gravity phase separator
 [NASA-CASE-HSC-14773-1] c35 N78-12390

POPICK, H.
 Laser apparatus for removing material from
 rotating objects Patent
 [NASA-CASE-HFS-11279] c16 N71-20400

POPHA, D. C.
 Recovery of potable water from human wastes in
 below-G conditions Patent
 [NASA-CASE-XLA-03213] c05 N71-11207

INVENTOR INDEX

PROK, G. H.

PORADEK, J. C.
 Process for conditioning tanned sharkskin and articles made therefrom Patent
 [NASA-CASE-XNS-09691-1] c18 N71-15545
 Process for removing sulfur dioxide from gas streams
 [NASA-CASE-HSC-16299-1] c45 N77-31668
 Simultaneous treatment of SO₂ containing stack gases and waste water
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PORTER, E. E.
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 [NASA-CASE-ARC-11110-1] c37 N78-32434
PORTER, E. W.
 Liquid rocket system Patent
 [NASA-CASE-INP-00610] c28 N70-36910
 Zero gravity starting means for liquid propellant motors Patent
 [NASA-CASE-INP-01390] c28 N70-41275
 Force-balanced, throttle valve Patent
 [NASA-CASE-WPO-10808] c15 N71-27432
PORTER, W. A.
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 [NASA-CASE-MPS-23315-1] c76 N78-24950
PORTNOY, W. A.
 Insulated electrocardiographic electrodes
 [NASA-CASE-HSC-14339-1] c05 N75-24716
POSCHENRIEDER, W. P.
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 [NASA-CASE-LAR-10180-1] c06 N71-13461
POSEY, D. L.
 Static pressure orifice system testing and apparatus
 [NASA-CASE-LAR-12269-1] c09 N78-33123
POSNER, E. C.
 Phase-locked loop with sideband rejecting properties Patent
 [NASA-CASE-INP-02723] c07 N70-41680
 Data compressor Patent
 [NASA-CASE-INP-04067] c08 N71-22707
 Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system
 [NASA-CASE-WPO-11302-1] c07 N73-13149
 Method and apparatus for a single channel digital communications system
 [NASA-CASE-WPO-11302-2] c32 N74-10132
POSTHA, R. W.
 Thrust measurement
 [NASA-CASE-XNS-05731] c35 N75-29382
POTATE, W. B.
 Multiparameter vision testing apparatus
 [NASA-CASE-HSC-13601-2] c54 N75-27759
POTTER, A. E., JR.
 Multispectral imaging system
 [NASA-CASE-HSC-12408-1] c23 N73-13661
POTTER, L. B.
 Thermocouple installation
 [NASA-CASE-WPO-13540-1] c35 N77-14409
POTTER, M. H.
 Method and apparatus for battery charge control Patent
 [NASA-CASE-XGS-05432] c03 N71-19438
POTTER, P. D.
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 [NASA-CASE-INP-00683] c09 N70-35425
 Dual mode horn antenna Patent
 [NASA-CASE-INP-01057] c07 N71-15907
 Dichroic plate
 [NASA-CASE-WPO-13506-1] c35 N76-15435
POUCHOT, W. D.
 Self-adjusting multisegment, deployable, natural circulation radiator Patent
 [NASA-CASE-XHQ-03673] c33 N71-29046
POVINELLI, L. A.
 Burning rate control of solid propellants Patent
 [NASA-CASE-XLE-03494] c27 N71-21819
POWELL, C. A., JR.
 Instrument for measuring the dynamic behavior of liquids Patent
 [NASA-CASE-XLA-05541] c12 N71-26387
POWELL, J. A.
 Process for fabricating SiC semiconductor devices
 [NASA-CASE-LEW-12094-1] c76 N76-25049
POWELL, J. D.
 Iodine generator for reclaimed water purification
 [NASA-CASE-HSC-14632-1] c54 N78-14784
POWELL, W. B.
 Thermocouple installation
 [NASA-CASE-WPO-13540-1] c35 N77-14409
POWELL, W. E., JR.
 Target acquisition antenna
 [NASA-CASE-GSC-10064-1] c10 N72-22235
POWER, J. L.
 Ion beam thruster shield
 [NASA-CASE-LER-12082-1] c20 N77-10148
POWERS, E. I.
 Thermal control system for a spacecraft modular housing
 [NASA-CASE-GSC-11018-1] c31 N73-30829
POZSONY, E. E.
 Apparatus and method for skin packaging articles
 [NASA-CASE-MPS-20855] c15 N73-27405
PRESCOTT, W. A.
 Liquid-gas separation system Patent
 [NASA-CASE-XNS-01624] c15 N70-40062
PRESTLEY, L. L.
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 [NASA-CASE-ARC-10598-1] c75 N74-30156
PRESTON, G. H.
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 [NASA-CASE-XKS-08012-2] c31 N71-15566
PRESTON, G. W.
 Satellite communication system Patent
 [NASA-CASE-INP-02389] c07 N71-28900
PRICE, A. G.
 Attitude sensor
 [NASA-CASE-LAR-10586-1] c19 N74-15089
PRICE, R. W.
 Gravity gradient attitude control system Patent
 [NASA-CASE-GSC-10555-1] c21 N71-27324
PRICE, P.
 Apparatus for establishing flow of a fluid mass having a known velocity
 [NASA-CASE-MPS-21424-1] c34 N74-27730
PRICE, S. B.
 Surface roughness detector Patent
 [NASA-CASE-XLA-00203] c14 N70-34161
PRIDE, J. D., JR.
 Remote controlled tubular disconnect Patent
 [NASA-CASE-XLA-01396] c03 N71-12259
PRIBBE, G. W.
 Relief container
 [NASA-CASE-XNS-06761] c05 N69-23192
PRIOLETTI, J. A.
 Inductive liquid level detection system Patent
 [NASA-CASE-XLE-01609] c14 N71-10500
PRITCHARD, E. B.
 Orbital and entry tracking accessory for globes
 [NASA-CASE-LAR-10626-1] c19 N74-21015
PRITCHARD, H. O.
 Reduction of nitric oxide emissions from a combustor
 [NASA-CASE-ARC-10814-2] c25 N77-31260
PROCH, G. B.
 Digital transmitter for data bus communications system
 [NASA-CASE-HSC-14558-1] c32 N75-21486
 Low distortion receiver for bi-level baseband PCM waveforms
 [NASA-CASE-HSC-14557-1] c32 N76-16249
PROENSEY, J. E.
 Method for making a heat insulating and ablative structure
 [NASA-CASE-XNS-01108] c15 N69-24322
PROFFIT, R. L.
 Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum
 [NASA-CASE-MPS-13130] c10 N72-17173
PROGAR, D. J.
 Process for applying black coating to metals Patent
 [NASA-CASE-XLA-06199] c15 N71-24875
 Polyimide adhesives
 [NASA-CASE-LAR-11397-1] c27 N75-29263
 Polyimide adhesives
 [NASA-CASE-LAR-12181-1] c27 N78-17205
PROK, G. H.
 Apparatus for making a metal slurry product Patent
 [NASA-CASE-XLE-00010] c15 N70-33382

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Flow measuring apparatus
[NASA-CASE-LEW-12078-1] c35 N75-30503
- PRUETT, B. J.
Apparatus for testing a pressure responsive instrument Patent
[NASA-CASE-XMF-04134] c14 N71-23755
- PRIOR, D. R.
Inflatable transpiration cooled nozzle
[NASA-CASE-MFS-20619] c28 N72-11708
- PRIOR, P. P., JR.
Computerized system for translating a torch head
[NASA-CASE-MFS-23620-1] c37 N79-10421
- PRZYBYSZEWSKI, J. S.
Method and apparatus for sputtering utilizing an apertured electrode and a pulsed substrate bias
[NASA-CASE-LEW-10920-1] c17 N73-24569
- PUCCELLI, A. A.
Three-axis controller Patent
[NASA-CASE-XAC-01404] c05 N70-41581
Transfer valve Patent
[NASA-CASE-XAC-01158] c15 N71-23051
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Integrated thermoelectric generator/space antenna combination
[NASA-CASE-XER-09521] c09 N72-12136
- PULLING, R. C.
Space suit
[NASA-CASE-MSC-12609-1] c05 N73-32012
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Electric storage battery
[NASA-CASE-NPO-11021] c03 N72-20032
- POTNAM, D. F.
Electrolytic cell structure
[NASA-CASE-LAR-11042-1] c33 N75-27252
- Q**
- QUATINETZ, M.
Method for producing fiber reinforced metallic composites Patent
[NASA-CASE-XLE-03925] c18 N71-22894
Gas purged dry box glove Patent
[NASA-CASE-XLE-02531] c05 N71-23080
Process for producing dispersion strengthened nickel with aluminum Patent
[NASA-CASE-XLE-06969] c17 N71-24142
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent
[NASA-CASE-XLE-03940] c18 N71-26153
Refractory metal base alloy composites
[NASA-CASE-XLE-03940-2] c17 N72-28536
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[NASA-CASE-NPO-14254-1] c36 N78-22359
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[NASA-CASE-XMS-00863] c05 N70-34857
Shock absorbing support and restraint means Patent
[NASA-CASE-XMS-01240] c05 N70-35152
Life preserver Patent
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Inflatable radar reflector unit Patent
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High visibility air sea rescue panel
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High visibility air sea rescue panel
[NASA-CASE-MSC-12564-2] c03 N78-25070
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[NASA-CASE-XNP-00234] c28 N70-38645
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[NASA-CASE-XLA-08967] c02 N71-27088
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[NASA-CASE-MFS-20068] c07 N71-27191
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[NASA-CASE-XKS-04614] c15 N69-21460
Active microwave irises and windows
[NASA-CASE-LAR-10513-1] c07 N72-25170
Thin film microwave iris
[NASA-CASE-LAR-10511-1] c09 N72-29172
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Method of removing insulated material from insulated wires
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Method of making dry electrodes
[NASA-CASE-PRC-10029-2] c05 N72-25121
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[NASA-CASE-NPO-14477-1] c28 N79-10224
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[NASA-CASE-XNP-02982] c31 N70-41855
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Buoyant anti-slosh system Patent
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Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N79-17813
- RAPOSA, F. L.
Parasitic suppressing circuit
[NASA-CASE-EBC-10403-1] c10 N73-26228
Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295
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Reversible current control apparatus Patent
[NASA-CASE-XLA-09371] c10 N71-18724
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Transparent switchboard
[NASA-CASE-MSC-13746-1] c10 N73-32143
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Angular measurement system Patent
[NASA-CASE-XMF-00447] c14 N70-33179
Electro-optical alignment control system Patent
[NASA-CASE-XMF-00908] c14 N70-40238
Laser coolant and ultraviolet filter
[NASA-CASE-MFS-20180] c16 N72-12440
Underwater space suit pressure control regulator
[NASA-CASE-MFS-20332] c05 N72-20097
Apparatus for making diamonds
[NASA-CASE-MFS-20698] c15 N72-20446
High temperature furnace for melting materials in space
[NASA-CASE-MFS-20710] c11 N72-23215
Process for making diamonds
[NASA-CASE-MFS-20698-2] c15 N73-19457
Underwater space suit pressure control regulator
[NASA-CASE-MFS-20332-2] c05 N73-25125
Digital computing cardiometer
[NASA-CASE-MFS-20284-1] c52 N74-12778
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Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154
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Solar cell shingle
[NASA-CASE-LEW-12587-1] c44 N77-31601
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Latch mechanism
[NASA-CASE-MSC-12549-1] c37 N74-27903
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Transistor drive regulator Patent
[NASA-CASE-LEW-10233] c10 N71-27126
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Platform for a swing root turbomachinery blade
[NASA-CASE-LEW-12312-1] c07 N77-32148
Impact absorbing blade mounts for variable pitch blades
[NASA-CASE-LEW-12313-1] c37 N78-10468
- RAWSON, J.
Display research collision warning system
[NASA-CASE-HQN-10703] c21 N73-13643
- RAY, W. L.
Remote fire stack igniter
[NASA-CASE-MFS-21675-1] c25 N74-33378
- RAYLE, W. D.
Electric propulsion engine test chamber Patent
[NASA-CASE-XLE-00252] c11 N70-34844

INVENTOR INDEX

REYNOLDS, J. H.

READ, F. G.
 Backpack carrier Patent
 [NASA-CASE-LAR-10056] c05 N71-12351

READ, W. S.
 Silent emergency alarm system for schools and
 the like
 [NASA-CASE-NPO-11307-1] c10 N73-30205
 Tool for use in lifting pin supported objects
 [NASA-CASE-NPO-13157-1] c37 N74-32918

READER, A. F.
 Method and apparatus for making curved
 reflectors Patent
 [NASA-CASE-XLE-08917] c15 N71-15597
 Apparatus for making curved reflectors Patent
 [NASA-CASE-XLE-08917-2] c15 N71-24836

READER, P. D.
 Ion thruster cathode
 [NASA-CASE-XLE-07087] c06 N69-39889
 Electrostatic ion engine having a permanent
 magnetic circuit Patent
 [NASA-CASE-XLE-01124] c28 N71-14043
 Electrostatic ion rocket engine Patent
 [NASA-CASE-XLE-02066] c28 N71-15661

RECHTER, H. L.
 Lightweight refractory insulation and method of
 preparing the same Patent
 [NASA-CASE-XMF-05279] c18 N71-16124

REDDING, A. H.
 Self-adjusting multisegment, deployable, natural
 circulation radiator Patent
 [NASA-CASE-XHQ-03673] c33 N71-29046

REDMON, J. W.
 Air bearing assembly for curved surfaces
 [NASA-CASE-MFS-20423] c15 N72-11388

REECH, O. Y.
 Low temperature flexure fatigue cryostat Patent
 [NASA-CASE-XMF-02964] c14 N71-17659
 Horizontal cryostat for fatigue testing Patent
 [NASA-CASE-XMF-10968] c14 N71-24234
 Synthesis of superconducting compounds by
 explosive compaction of powders
 [NASA-CASE-MFS-20861-1] c18 N73-32437

REED, A. E.
 High power-high voltage waterload Patent
 [NASA-CASE-XNP-05381] c09 N71-20842

REED, J. H., JR.
 Instrument for use in performing a controlled
 Valsalva maneuver Patent
 [NASA-CASE-XMS-01615] c05 N70-41329

REED, L.
 Method of forming ceramic to metal seal Patent
 [NASA-CASE-XNP-01263-2] c15 N71-26312

REED, W. H., III
 Test unit free-flight suspension system Patent
 [NASA-CASE-XLA-00939] c11 N71-15926
 Viscous pendulum-damper Patent
 [NASA-CASE-XLA-02079] c12 N71-16894
 Viscous pendulum damper Patent
 [NASA-CASE-LAR-10274-1] c14 N71-17626
 Suspended mass impact damper Patent
 [NASA-CASE-LAR-10193-1] c15 N71-27146

REESE, P. B.
 A pressure limiting propellant actuating system
 [NASA-CASE-HSC-18179-1] c20 N78-31162

REGNIER, W. W.
 Passive propellant system
 [NASA-CASE-MFS-23642-2] c20 N78-27176

REHAGE, J. R.
 Pulse counting circuit which simultaneously
 indicates the occurrence of the nth pulse Patent
 [NASA-CASE-XMF-00906] c09 N70-41655

REIBER, J. H. C.
 Contour detector and data acquisition system for
 the left ventricular outline
 [NASA-CASE-ARC-10985-1] c52 N79-10724

REID, H. J. E., JR.
 Dynamic precession damper for spin stabilized
 vehicles Patent
 [NASA-CASE-XLA-01989] c21 N70-34295
 Attitude orientation of spin-stabilized space
 vehicles Patent
 [NASA-CASE-XLA-00281] c21 N70-36943

REID, H., JR.
 Pulse width inverter Patent
 [NASA-CASE-MFS-10068] c10 N71-25139
 Induction motor control system with voltage
 controlled oscillator circuit
 [NASA-CASE-MFS-21465-1] c10 N73-32145

REID, M. S.
 Conical scan tracking system employing a large
 antenna
 [NASA-CASE-NPO-14009-1] c32 N79-13214

REID, R.
 Spacecraft docking and alignment system
 [NASA-CASE-MSC-12559-1] c18 N76-14186

REID, W. J.
 Digital frequency discriminator Patent
 [NASA-CASE-MFS-14322] c08 N71-18692

REILLY, R. B.
 Satellite personal communications system
 [NASA-CASE-NPO-14480-1] c32 N78-25275

REINHARDT, G.
 Gas purged dry box glove Patent
 [NASA-CASE-XLE-02531] c05 N71-23080

REINHARDT, V. S.
 Time domain phase measuring apparatus
 [NASA-CASE-GSC-12228-1] c33 N79-10338
 External bulb variable volume maser
 [NASA-CASE-GSC-12334-1] c36 N79-14362

REINHOLD, H. W.
 Circuit breaker utilizing magnetic latching
 relays Patent
 [NASA-CASE-MSC-11277] c09 N71-29008

REINISCH, R. F.
 Ultraviolet and thermally stable polymer
 compositions
 [NASA-CASE-ARC-10592-1] c27 N74-21156
 Ultraviolet and thermally stable polymer
 compositions
 [NASA-CASE-ARC-10592-2] c27 N76-32315

REINWITZ, K.
 Extended area semiconductor radiation detectors
 and a novel readout arrangement Patent
 [NASA-CASE-XGS-03230] c14 N71-23401

REINBAUM, A.
 Method of using photovoltaic cell using
 poly-N-vinylcarbazole complex Patent
 [NASA-CASE-NPO-10373] c03 N71-18698
 Dicyanoacetylene polymers Patent
 [NASA-CASE-XNP-03250] c06 N71-23500
 Heat detection and compositions and devices
 therefor
 [NASA-CASE-NPO-10764-1] c14 N73-14428
 Preparation of alkali metal dispersions
 [NASA-CASE-XNP-08876] c17 N73-28573
 Heat detection and compositions and devices
 therefor
 [NASA-CASE-NPO-10764-2] c35 N75-25122
 Durable antistatic coating for
 polymethylmethacrylate
 [NASA-CASE-NPO-13867-1] c27 N78-14164
 Nuclear alkylated pyridine aldehyde polymers and
 conductive compositions thereof
 [NASA-CASE-NPO-10557] c27 N78-17214
 Pressure transducer
 [NASA-CASE-NPO-11150] c35 N78-17359

REINPEL, R. C.
 Optically pumped resonance magnetometer for
 determining vectoral components in a spatial
 coordinate system Patent
 [NASA-CASE-IGS-04879] c14 N71-20428

REINPFER, P. S.
 Aircraft control system
 [NASA-CASE-ERC-10439] c02 N73-19004

REINWER, R.
 Bacteria detection instrument and method
 [NASA-CASE-GSC-11533-1] c14 N73-13435

REINWE, P. A.
 Automated clinical system for chromosome analysis
 [NASA-CASE-NPO-13913-1] c52 N79-12694

REPAN, J.
 Rubber composition for use with hydrazine Patent
 Application
 [NASA-CASE-NPO-11433] c18 N71-31140

REPAS, G. A.
 Rocket propellant injection
 [NASA-CASE-LEW-11071-1] c27 N73-27695

RESNICK, J. B.
 A prosthesis coupling
 [NASA-CASE-KSC-11069-1] c54 N78-22721

REYNOLDS, H. I.
 Edge coating of flat wires
 [NASA-CASE-XMF-05757-1] c31 N79-21227

REYNOLDS, J. H.
 Device and method for determining X ray
 reflection efficiency of optical surfaces
 [NASA-CASE-MFS-20243] c23 N73-13662

REYNOLDS, R. K.

INVENTOR INDEX

REYNOLDS, R. K. Hydrogen-fueled engine [NASA-CASE-NPO-13763-1]	c44 N78-33526	[NASA-CASE-GSC-10225-1]	c06 N73-27086
REYNOLDS, W. E. Circuit breaker utilizing magnetic latching relays Patent [NASA-CASE-MSC-11277]	c09 N71-29008	RICHARD, C. E. Low cycle fatigue testing machine [NASA-CASE-LAR-10270-1]	c32 N72-25877
RHO, J. H. Automated fluid chemical analyzer Patent [NASA-CASE-INP-09451]	c06 N71-26754	RICHARD, R. E. Angular accelerometer Patent [NASA-CASE-IMS-05936]	c14 N70-41682
RHODES, D. B. Optical scanner [NASA-CASE-LAR-11711-1]	c74 N78-17866	RICHARDS, E. R. Method for detecting pollutants [NASA-CASE-LAR-11405-1]	c45 N76-31714
RHODES, L. L. Latching mechanism Patent [NASA-CASE-MSC-15474-1]	c15 N71-26162	RICHARDS, W. E. Method and apparatus for optical modulating a light signal Patent [NASA-CASE-GSC-10216-1]	c23 N71-26722
RHODES, E. D. Composite sandwich lattice structure [NASA-CASE-LAR-11898-1]	c24 N78-10214	RICHARDSON, E. W. Method for measuring cutaneous sensory perception [NASA-CASE-MSC-13609-1]	c05 N72-25122
Method of making a composite sandwich lattice structure [NASA-CASE-LAR-11898-2]	c24 N78-17149	RICHLBY, E. A. Rocket engine Patent [NASA-CASE-XLE-00342]	c28 N70-37980
RIAZ, M. Constant frequency output two stage induction machine systems Patent [NASA-CASE-ERC-10065]	c09 N71-27364	RICHMOND, J. C. Ellipsoidal mirror reflectometer including means for averaging the radiation reflected from the sample Patent [NASA-CASE-XGS-05291]	c23 N71-16341
RIBARICH, J. J. Guidance and maneuver analyzer Patent [NASA-CASE-XNP-09572]	c14 N71-15621	RICHTEB, C. G. Formed metal ribbon wrap Patent [NASA-CASE-XLE-00164]	c15 N70-36411
RICCITIELLO, S. E. Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles [NASA-CASE-ARC-11008-1]	c27 N78-31232	RICHTEB, E. L. Reversible motion drive system Patent [NASA-CASE-NPO-10173]	c15 N71-24696
RICCITIELLO, S. E. Modified polyurethane foams for fuel-fire Patent [NASA-CASE-ARC-10098-1]	c06 N71-24739	RICHTEB, I. A. Dual digital video switcher [NASA-CASE-KSC-10782-1]	c33 N75-30431
Flexible fire retardant foam [NASA-CASE-ARC-10180-1]	c28 N72-20767	RIEBE, J. H. Landing arrangement for aerial vehicles Patent [NASA-CASE-XLA-00142]	c02 N70-33286
Intumescent composition, foamed product prepared therewith, and process for making same [NASA-CASE-ARC-10304-1]	c18 N73-26572	Jet aircraft configuration Patent [NASA-CASE-XLA-00087]	c02 N70-33332
Flexible fire retardant polyisocyanate modified neoprene foam [NASA-CASE-ARC-10180-1]	c27 N74-12814	Landing arrangement for aerial vehicle Patent [NASA-CASE-XLA-00806]	c02 N70-34858
Intumescent composition, foamed product prepared therewith and process for making same [NASA-CASE-ARC-10304-2]	c27 N74-27037	Landing arrangement for aerospace vehicle Patent [NASA-CASE-XLA-00805]	c31 N70-38010
Fire protection covering for small diameter missiles [NASA-CASE-ARC-11104-1]	c15 N78-13110	Control system for rocket vehicles Patent [NASA-CASE-XLA-01163]	c21 N71-15582
Intumescent coatings containing 4,4'-dinitrosulfanilide [NASA-CASE-ARC-11042-1]	c24 N78-14096	RIBBLING, E. W. Force-balanced, throttle valve Patent [NASA-CASE-NPO-10808]	c15 N71-27432
Catalysts for imide formation from aromatic isocyanates and aromatic dianhydrides [NASA-CASE-ARC-11107-1]	c23 N78-22156	Bipropellant injector [NASA-CASE-INP-09461]	c28 N72-23809
Intumescent-ablator coatings using endothermic fillers [NASA-CASE-ARC-11043-1]	c24 N78-27180	RILEY, J. F. Compact solar still Patent [NASA-CASE-IMS-04533]	c15 N71-23086
Ambient cure polyimide foams [NASA-CASE-ARC-11170-1]	c27 N79-11215	RILEY, T. J. Nickel-base alloy Patent [NASA-CASE-XLE-00283]	c17 N70-36616
RICE, R. F. Data compression system [NASA-CASE-NPO-11243]	c07 N72-20154	RINARD, G. A. Tumbler system to provide random motion [NASA-CASE-XGS-02437]	c15 N69-21472
Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel [NASA-CASE-NPO-13545-1]	c32 N77-12240	RINDNER, W. Voltage tunable Gunn-type microwave generator Patent [NASA-CASE-XER-07894]	c09 N71-18721
RICE, R. R. Cryogenic storage system Patent [NASA-CASE-IMS-04390]	c31 N70-41871	Transverse piezoresistance and pinch effect electromechanical transducers Patent [NASA-CASE-ERC-10088]	c26 N71-25490
RICE, R. W. Method of hydrostatically extruding refractory materials [NASA-CASE-NPO-10811]	c15 N71-34425	Pressure sensitive transducers Patent [NASA-CASE-ERC-10087]	c14 N71-27334
Extrusion can [NASA-CASE-NPO-10812]	c15 N73-13464	Gunn-type solid state devices [NASA-CASE-XER-07895]	c26 N72-25679
RICE, S. H. Method of treating the surface of a glass member [NASA-CASE-GSC-12110-1]	c27 N77-32308	Electricity measurement devices employing liquid crystalline materials [NASA-CASE-ERC-10275]	c26 N72-25680
RICE, W. J. Indicated mean-effective pressure instrument [NASA-CASE-LBW-12661-1]	c35 N79-14345	Semiconductor transducer device [NASA-CASE-ERC-10087-2]	c14 N72-31446
RICH, E., JR. Bacterial contamination monitor [NASA-CASE-GSC-10879-1]	c14 N72-25413	RINEHART, D. Space suit [NASA-CASE-MSC-12609-1]	c05 N73-32012
Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves		RINGELMAN, J. F. Regulated power supply Patent [NASA-CASE-IMS-01991]	c09 N71-21449
		RIPPI, R. E. Linear phase demodulator including a phase locked loop with auxiliary feedback loop [NASA-CASE-GSC-12018-1]	c33 N77-14334
		RITCHIE, D. G. Soil particles separator, collector and viewer Patent [NASA-CASE-INP-09770]	c15 N71-20440

INVENTOR INDEX

ROMAN, J. A.

Material handling device Patent
[NASA-CASE-XNP-09770-3] c11 N71-27036

Screen particle separator
[NASA-CASE-XNP-09770-2] c15 N72-22483

RITCHIE, D. W.
Solar battery with interconnecting means for
plural cells Patent
[NASA-CASE-XNP-06506] c03 N71-11050

RITCHIE, V. S.
Aerodynamic measuring device Patent
[NASA-CASE-XLA-00481] c14 N70-36824

Check valve assembly for a probe Patent
[NASA-CASE-XLA-00128] c15 N70-37925

RITTER, D. L.
Foldable construction block
[NASA-CASE-HSC-12233-2] c32 N73-13921

RLOFF, K. L.
Dual wavelength scanning Doppler velocimeter
[NASA-CASE-ARC-10637-1] c35 N75-16783

ROACH, J. E.
Casting propellant in rocket engine
[NASA-CASE-LAR-11995-1] c28 N77-10213

ROBBINS, H. J.
Attitude control system for sounding rockets
Patent
[NASA-CASE-XGS-01654] c31 N71-24750

ROBELEN, D. B.
Deploy/release system
[NASA-CASE-LAR-11575-1] c02 N76-16014

ROBERTS, D. E.
Apparatus for testing wiring harness by
vibration generating means
[NASA-CASE-HSC-15158-1] c14 N72-17325

ROBERTS, D. L.
Laser apparatus for removing material from
rotating objects Patent
[NASA-CASE-MFS-11279] c16 N71-20400

ROBERTS, E. J.
Cryogenic feedthrough
[NASA-CASE-LAR-10031] c15 N72-22484

ROBERTS, H. L.
Stainless steel panel for selective absorption
of solar energy and the method of producing
said panel
[NASA-CASE-MFS-23518-2] c44 N77-31611

Stainless steel panel for selective absorption
of solar energy and the method of producing
said panel
[NASA-CASE-MFS-23518-3] c44 N78-25557

Method for making an aluminum or copper
substrate panel for selective absorption of
solar energy
[NASA-CASE-MFS-23518-1] c44 N79-11469

ROBERTS, V. W.
Silent emergency alarm system for schools and
the like
[NASA-CASE-NPO-11307-1] c10 N73-30205

ROBERTSON, A. J.
Aircraft control system
[NASA-CASE-ERC-10439] c02 N73-19004

ROBERTSON, J. B.
High field CdS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088

Real time liquid crystal image converter
[NASA-CASE-LAR-11206-1] c74 N74-30118

ROBERTSON, W. L.
Two-axis controller Patent
[NASA-CASE-XPR-04104] c03 N70-42073

ROBILLARD, G.
Apparatus and method for control of a solid
fueled rocket vehicle Patent
[NASA-CASE-XNP-00217] c28 N70-38181

ROBINS, A. W.
Supersonic aircraft Patent
[NASA-CASE-XLA-04451] c02 N71-12243

ROBINSON, G. P.
Heat flux sensor assembly
[NASA-CASE-XHS-05909-1] c14 N69-27459

ROBINSON, H.
Solid state chemical source for ammonia beam
laser Patent
[NASA-CASE-XGS-01504] c16 N70-41578

ROBINSON, R. K.
Fuselage structure using advanced technology
metal matrix fiber reinforced composites
[NASA-CASE-LAR-11688-1] c05 N78-18045

ROBINSON, W. J., JR.
Microwave power transmission system wherein
level of transmitted power is controlled by
reflections from receiver
[NASA-CASE-MFS-21470-1] c44 N74-19870

ROBSON, P. M.
Traveling wave solid state amplifier utilizing a
semiconductor with negative differential
mobility
[NASA-CASE-HQN-10069] c33 N75-27251

ROCHOW, S. E.
Hydroxy terminated perfluoro ethers Patent
[NASA-CASE-NPO-10768] c06 N71-27254

Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121

Polyurethane resins from hydroxy terminated
perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144

Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-2] c06 N72-27151

Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076

RODNER, W. H.
Solar cell mounting Patent
[NASA-CASE-XNP-00826] c03 N71-20895

ROEDER, E. R.
Brazing alloy binder
[NASA-CASE-XMF-05868] c26 N75-27125

Brazing alloy composition
[NASA-CASE-XMF-06053] c26 N75-27126

Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127

ROESKE, P. W.
Inductive liquid level detection system Patent
[NASA-CASE-XLE-01609] c14 N71-10500

ROGALLO, F. M.
Aeroflexible structures
[NASA-CASE-XLA-06095] c01 N69-39981

Jet aircraft configuration Patent
[NASA-CASE-XLA-00087] c02 N70-33332

Control for flexible parawing Patent
[NASA-CASE-XLA-06958] c02 N71-11038

ROGALLO, V. L.
Propeller blade loading control Patent
[NASA-CASE-XAC-00139] c02 N70-34856

Null-type vacuum microbalance Patent
[NASA-CASE-XAC-00472] c15 N70-40180

Thermo-protective device for balances Patent
[NASA-CASE-XAC-00648] c14 N70-40400

Force transducer Patent
[NASA-CASE-XAC-01101] c14 N70-41957

ROGERS, F. O.
Synthesis of zinc titanate pigment and coatings
containing the same
[NASA-CASE-MFS-13532] c18 N72-17532

ROGERS, J. R.
Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465

Smoke generator
[NASA-CASE-ARC-10905-1] c37 N77-13418

ROGOWSKI, R. S.
Method for detecting pollutants
[NASA-CASE-LAR-11405-1] c45 N76-31714

Thermoluminescent aerosol analysis
[NASA-CASE-LAR-12046-1] c25 N78-15210

ROLF, E.
Laser Doppler system for measuring three
dimensional vector velocity Patent
[NASA-CASE-MFS-20386] c21 N71-19212

ROLIK, G. P.
Solar cell panels with light transmitting plate
[NASA-CASE-NPO-10747] c03 N72-22042

ROLLER, R. F.
Demodulator for carrier transducers
[NASA-CASE-MUC-10107-1] c33 N74-17930

ROLLINS, G. M.
System for calibrating pressure transducer
[NASA-CASE-LAR-10910-1] c35 N74-13132

ROLLINS, J. R.
Externally supported internally stabilized
flexible duct joint
[NASA-CASE-MFS-19194-1] c37 N76-14460

ROM, F. E.
Gaseous nuclear rocket Patent
[NASA-CASE-XLE-00321] c22 N70-34572

Gas core nuclear reactor Patent
[NASA-CASE-LEW-10250-1] c22 N71-28759

ROMAN, J. A.
Biomedical electrode arrangement Patent
[NASA-CASE-XPR-10856] c05 N71-11189

Method and apparatus for attaching physiological
monitoring electrodes Patent

[NASA-CASE-XFB-07658-1] c05 N71-26293
Gas low pressure low flow rate metering system
Patent
[NASA-CASE-FRC-10022] c12 N71-26546
Respiration monitor
[NASA-CASE-FRC-10012] c14 N72-17329
ROMAN, R.
Hydrogen hollow cathode ion source
[NASA-CASE-LEW-12940-1] c75 N79-10894
ROMANECZYK, R. C.
Fringe counter for interferometers Patent
[NASA-CASE-LAR-10204] c14 N71-27215
ROMMEL, H. A.
Hydrogen leak detection device Patent
[NASA-CASE-NPS-11537] c14 N71-20442
ROMVARY, E., JR.
Intermittent type silica gel adsorption
refrigerator Patent
[NASA-CASE-XNP-00920] c15 N71-15906
ROMNEY, B. W.
Evacuation valve
[NASA-CASE-LAR-10061-1] c15 N72-31483
ROOT, G. L.
Valve seat
[NASA-CASE-NPO-10606] c15 N72-25451
ROSALLES, L. A.
Control valve and co-axial variable injector
Patent
[NASA-CASE-XNP-09702] c15 N71-17654
Multiple orifice throttle valve Patent
[NASA-CASE-XNP-09698] c15 N71-18580
ROSEN, H. A.
Varactor high level mixer
[NASA-CASE-XGS-02171] c09 N69-24324
Apparatus for changing the orientation and
velocity of a spinning body traversing a path
Patent
[NASA-CASE-HQN-00936] c31 N71-29050
ROSEN, L.
Focused image holography with extended sources
Patent
[NASA-CASE-ERC-10019] c16 N71-15551
Recording and reconstructing focused image
holograms Patent
[NASA-CASE-ERC-10017] c16 N71-15567
Method and means for recording and
reconstructing holograms without use of a
reference beam Patent
[NASA-CASE-ERC-10020] c16 N71-26154
ROSENBAUM, B. J.
Flow test device
[NASA-CASE-XNS-04917] c14 N69-24257
ROSENBLUM, L.
Split welding chamber Patent
[NASA-CASE-LEW-11531] c15 N71-14932
Analytical test apparatus and method for
determining oxide content of alkali metal Patent
[NASA-CASE-XLE-01997] c06 N71-23527
ROSENGREN, L. G.
Method and apparatus for background signal
reduction in opto-acoustic absorption
measurement
[NASA-CASE-NPO-13683-1] c35 N77-14411
ROSIER, W. R.
A portable device particularly suited for use in
starting air-start units for aircraft
[NASA-CASE-FRC-10113-1] c09 N78-19166
ROSIN, A. D.
Zero gravity separator Patent
[NASA-CASE-XLE-00586] c15 N71-15968
ROSIN, S.
Wide angle long eye relief eyepiece Patent
[NASA-CASE-XNS-06056-1] c23 N71-24857
Ritchey-Chretien Telescope
[NASA-CASE-GSC-11487-1] c14 N73-30393
ROSINSKI, W. K.
Adjustable force probe
[NASA-CASE-NPS-20760] c14 N72-33377
ROSITANO, S. A.
Visual examination apparatus
[NASA-CASE-ABC-10329-1] c05 N73-26072
Visual examination apparatus
[NASA-CASE-RE-ABC-10329-2] c52 N76-30793
ROSSER, R. W.
Polyimide foam for the thermal insulation and
fire protection
[NASA-CASE-ABC-10464-1] c27 N74-12812
Fiber modified polyurethane foam for ballistic
protection

[NASA-CASE-ARC-10714-1] c27 N76-15310
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-1] c23 N78-22154
Synthesis of multifunction triaryltrifluoroethanes
[NASA-CASE-ARC-11097-2] c23 N78-22155
ROSSI, B. B.
X-ray reflection collimator adapted to focus
X-radiation directly on a detector Patent
[NASA-CASE-XHQ-04106] c14 N70-40240
ROSSOV, V. J.
Apparatus for measuring conductivity and
velocity of plasma utilizing a plurality of
sensing coils positioned in the plasma Patent
[NASA-CASE-XAC-05695] c25 N71-16073
ROTH, H.
Voltage tunable Gunn-type microwave generator
Patent
[NASA-CASE-XER-07894] c09 N71-18721
Gunn-type solid state devices
[NASA-CASE-XER-07895] c26 N72-25679
ROTMAN, A.
Supporting and protecting device Patent
[NASA-CASE-XNP-00580] c11 N70-35383
ROUDEBUSH, W. H.
Gas turbine combustor Patent
[NASA-CASE-LEW-10286-1] c28 N71-28915
ROUGHTON, W. A.
Method and apparatus for vibration analysis
utilizing the Mossbauer effect
[NASA-CASE-XNP-05882] c35 N75-27529
ROUSEY, W. J.
System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519
ROUTH, D. E.
Method of construction of a multi-cell solar array
[NASA-CASE-NPS-23540-1] c44 N78-17468
Multilevel metallization method for fabricating
a metal oxide semiconductor device
[NASA-CASE-NPS-23541-1] c76 N79-14906
ROUZER, L. E.
Segmented superconducting magnet for a broadband
traveling wave maser Patent
[NASA-CASE-XGS-10518] c16 N71-28554
ROWE, R. E.
Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654
ROULAND, C. W.
Apparatus for ejection of an instrument cover
[NASA-CASE-XNP-04132] c15 N69-27502
Laser communication system for controlling
several functions at a location remote to the
laser
[NASA-CASE-LAR-10311-1] c16 N73-16536
ROWLEY, P. D.
Measurement of plasma temperature and density
using radiation absorption
[NASA-CASE-ABC-10598-1] c75 N74-30156
ROY, W. L.
Cosmic dust analyzer
[NASA-CASE-MSC-13802-2] c35 N76-15431
Particle parameter analyzing system
[NASA-CASE-XLE-06094] c33 N78-17293
Apparatus for handling micron size range
particulate material
[NASA-CASE-NPO-10151] c37 N78-17386
ROY, U.
Synthesis of superconducting compounds by
explosive compaction of powders
[NASA-CASE-NPS-20861-1] c18 N73-32437
RUBBERT, K. F.
Method of obtaining permanent record of surface
flow phenomena Patent
[NASA-CASE-XLA-01353] c14 N70-41366
Quick release connector Patent
[NASA-CASE-XLA-01141] c15 N71-13789
RUBIN, B.
Process for the preparation of brushite crystals
[NASA-CASE-ERC-10338] c04 N72-33072
RUBIN, D. C.
Electricity measurement devices employing liquid
crystalline materials
[NASA-CASE-ERC-10275] c26 N72-25680
RUBIN, I.
Hexagon solar power panel
[NASA-CASE-NPO-12148-1] c44 N78-27515
RUDDOCK, K. A.
Optically pumped resonance magnetometer for
determining vectoral components in a spatial
coordinate system Patent

INVENTOR INDEX

SALTER, W. E.

[NASA-CASE-IGS-04879] c14 N71-20428
RUDERMAN, I. V.
 Metabolic rate meter and method
 [NASA-CASE-HSC-12239-1] c52 N79-21750
RUDMAN, A. A.
 Coupling device for moving vehicles
 [NASA-CASE-GSC-12322-1] c37 N78-25429
 A coupling device for moving vehicles
 [NASA-CASE-GSC-12429-1] c37 N79-19364
RUDNICK, I.
 Acoustic driving of rotor
 [NASA-CASE-NPO-14005-1] c71 N79-20827
RUHKE, L. H.
 Determining distance to lightning strokes from a
 single station
 [NASA-CASE-KSC-10698] c07 N73-20175
 Rocket borne instrument to measure electric
 fields inside electrified clouds
 [NASA-CASE-KSC-10730-1] c14 N73-32318
RUMBLE, C. V.
 Adjustable frequency response microphone
 [NASA-CASE-LAR-11170-1] c32 N74-12843
 Means for accommodating large overstrain in lead
 wires
 [NASA-CASE-LAR-10168-1] c33 N74-22865
RUMMEL, J. A.
 Metabolic analyzer
 [NASA-CASE-HFS-21415-1] c52 N74-20728
RUMMLER, D. B.
 Automatic force measuring system Patent
 [NASA-CASE-XLA-02605] c14 N71-10773
 Low mass truss structure
 [NASA-CASE-LAR-10546-1] c11 N72-25287
RUNDLELL, D. J.
 Variable mixer propulsion cycle
 [NASA-CASE-LEW-12917-1] c07 N78-18067
RUPE, J. H.
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-1] c37 N76-16446
 System for minimizing internal combustion engine
 pollution emission
 [NASA-CASE-NPO-13402-1] c37 N76-18457
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-2] c44 N76-29700
RUPNIK, D. B.
 Switching circuit Patent
 [NASA-CASE-XNP-06505] c10 N71-24799
RUPE, C. C.
 Attitude control system
 [NASA-CASE-HFS-22787-1] c15 N77-10113
 Tetherline system for orbiting satellites
 [NASA-CASE-HFS-23564-1] c15 N78-25119
RUSSELL, C. H.
 Analog to digital converter tester Patent
 [NASA-CASE-XLA-06713] c14 N71-28991
RUSSELL, G. E.
 Inert gas metallic vapor laser
 [NASA-CASE-NPO-13449-1] c36 N75-32441
 Isotope separation using metallic vapor lasers
 [NASA-CASE-NPO-13550-1] c36 N77-26477
RUSSELL, J. H., III
 Event recorder Patent
 [NASA-CASE-XLA-01832] c14 N71-21006
 Ablation sensor Patent
 [NASA-CASE-XLA-01791] c14 N71-22991
RUSSELL, L. D.
 High intensity radiant energy pulse source
 having means for opening shutter when light
 flux has reached a desired level
 [NASA-CASE-ARC-10178-1] c09 N72-17152
 Thermoelectric radiometer utilizing polymer film
 [NASA-CASE-ARC-10138-1] c14 N72-24477
RUSSELL, W. E.
 Method and apparatus for making curved
 reflectors Patent
 [NASA-CASE-XLE-08917] c15 N71-15597
 Apparatus for making curved reflectors Patent
 [NASA-CASE-XLE-08917-2] c15 N71-24836
RUST, B.
 Solenoid construction Patent
 [NASA-CASE-XNP-01951] c09 N70-41929
RYAN, C. E.
 Quadrature demodulation
 [NASA-CASE-GSC-12137-1] c33 N78-32338
RYAN, P. R.
 Solar photolysis of water
 [NASA-CASE-NPO-13675-1] c44 N77-32580
 Solar photolysis of water
 [NASA-CASE-NPO-14126-1] c44 N79-11470

S

SABAROFF, S.
 Broadband frequency discriminator Patent
 [NASA-CASE-NPO-10096] c07 N71-24583
 Systems and methods for determining radio
 frequency interference
 [NASA-CASE-GSC-12150-1] c32 N79-11265
SABELMAN, E. E.
 Pump for delivering heated fluids
 [NASA-CASE-NPO-11417] c15 N73-24513
 Ferrofluidic solenoid
 [NASA-CASE-NPO-11738-1] c09 N73-30185
SABOL, A. P.
 Crossed-field HED plasma generator/ accelerator
 Patent
 [NASA-CASE-XLA-03374] c25 N71-15562
 Self-repeating plasma generator having
 communicating annular and linear arc discharge
 passages Patent
 [NASA-CASE-XLA-03103] c25 N71-21693
 Apparatus and method for generating large mass
 flow of high temperature air at hypersonic
 speeds
 [NASA-CASE-LAR-10612-1] c12 N73-28144
 Heat exchanger system and method
 [NASA-CASE-LAR-10799-2] c34 N76-17317
 Solar hydrogen generator
 [NASA-CASE-LAR-11361-1] c44 N77-22607
SACKS, B. H.
 Magnetically actuated tuning method for Gunn
 oscillators
 [NASA-CASE-NPO-12106] c09 N73-15235
SADHUKHAN, P.
 Process for preparing higher oxides of the
 alkali and alkaline earth metals
 [NASA-CASE-ARC-10992-1] c26 N78-32229
SAFFREN, H. H.
 Material suspension within an acoustically
 excited resonant chamber
 [NASA-CASE-NPO-13263-1] c12 N75-24774
 Heat operated cryogenic electrical generator
 [NASA-CASE-NPO-13303-1] c20 N75-24837
 Doped Josephson tunneling junction for use in a
 sensitive IR detector
 [NASA-CASE-NPO-13348-1] c33 N75-31332
 Magnetometer using superconducting rotating body
 [NASA-CASE-NPO-13388-1] c35 N76-16390
 Method and apparatus for generating coherent
 radiation in the ultra-violet region and above
 by use of distributed feedback
 [NASA-CASE-NPO-13346-1] c36 N76-29575
 Apparatus for photon excited catalysis
 [NASA-CASE-NPO-13566-1] c25 N77-32255
SAHINKAYA, Y.
 Optimal control system for an electric motor
 driven vehicle
 [NASA-CASE-NPO-11210] c11 N72-20244
SAINSBURY-CARTER, J. B.
 Bonded joint and method
 [NASA-CASE-LAR-10900-1] c37 N74-23064
SAINTCLAIR, T. L.
 Polyimide adhesives
 [NASA-CASE-LAR-11397-1] c27 N75-29263
SAKELLARIS, P. C.
 Automatic fluid dispenser
 [NASA-CASE-ARC-10820-1] c35 N78-19466
SALAMA, A. E.
 Method of mitigating titanium impurities effects
 in P-type silicon material for solar cells
 [NASA-CASE-NPO-14635-1] c44 N79-17315
SALEHBE, C. T.
 Impact absorbing blade mounts for variable pitch
 blades
 [NASA-CASE-LEW-12313-1] c37 N78-10468
SALISBURY, J. K., JR.
 An improved controller arm for a remotely
 related slave arm
 [NASA-CASE-ARC-11052-1] c54 N77-30751
SALMINS, S.
 Radiation direction detector including means for
 compensating for photocell aging Patent
 [NASA-CASE-XLA-00183] c14 N70-40239
 Spacecraft separation system for spinning
 vehicles and/or payloads Patent
 [NASA-CASE-XLA-02132] c31 N71-10582
SALTER, W. E.
 Pseudo-noise test set for communication system

evaluation [NASA-CASE-NFS-22671-1]	c35 N75-21582	[NASA-CASE-MSC-14640-1]	c54 N76-14804
Method of and means for testing a tape record/playback system [NASA-CASE-NFS-22671-2]	c35 N77-17426	SAUER, T. E. Parallel-plate viscometer with double diaphragm suspension [NASA-CASE-NPO-11387]	c14 N73-14429
SALTZMAN, E. J. Traversing probe Patent [NASA-CASE-IFR-02007]	c12 N71-24692	SAURES, D. G. Measuring device Patent [NASA-CASE-XMS-01546]	c14 N70-40233
SALVINSKI, B. J. Electrohydrodynamic control valve Patent [NASA-CASE-NPO-10416]	c12 N71-27332	Lightweight electrically-powered flexible thermal laminate [NASA-CASE-MSC-12662-1]	c33 N79-12331
Ultrasonically bonded valve assembly [NASA-CASE-NPO-13360-1]	c37 N75-25185	SAUNDERS, A. R. A technique for breaking ice in the path of a ship [NASA-CASE-LAR-10815-1]	c16 N72-22520
SAMFIELD, E. Inflatable tether Patent [NASA-CASE-XMS-10993]	c15 N71-28936	SAUNDERS, W. T. Method of producing porous tungsten ionizers for ion rocket engines Patent [NASA-CASE-XLE-00455]	c28 N70-38197
SAMONSKI, P. H., JR. Liquid-gas separator for zero gravity environment Patent [NASA-CASE-XMS-01492]	c05 N70-41297	SAUTER, R. J. Foot pedal operated fluid type exercising device [NASA-CASE-MSC-11561-1]	c05 N73-32014
SANSON, J. A. R. Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochrometer Patent [NASA-CASE-LAR-10180-1]	c06 N71-13461	SAVINO, J. H. Simulated fetal assembly Patent [NASA-CASE-XLE-00724]	c14 N70-34669
SANSON, R. Sealed cabinetry Patent [NASA-CASE-MSC-12168-1]	c09 N71-18600	SAGKO, P. E. Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines [NASA-CASE-ARC-10325]	c06 N72-25147
SAW MIGUEL, A. Means and method of measuring viscoelastic strain Patent [NASA-CASE-XNP-01153]	c32 N71-17645	Intumescent paint containing nitrile rubber [NASA-CASE-ARC-10196-1]	c18 N73-13562
Miniature stress transducer Patent [NASA-CASE-XNP-02983]	c14 N71-21091	Transparent fire resistant polymeric structures [NASA-CASE-ARC-10813-1]	c27 N76-16230
SANDBORN, V. A. Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent [NASA-CASE-XLE-00243]	c14 N70-38602	Intumescent coatings containing 4,4'-dinitrosulfanilide [NASA-CASE-ARC-11042-1]	c24 N78-14096
Apparatus for increasing ion engine beam density Patent [NASA-CASE-XLE-00519]	c28 N70-41576	Catalysts for imide formation from aromatic isocyanates and aromatic dianhydrides [NASA-CASE-ARC-11107-1]	c23 N78-22156
SANDER, R. C. Transient video signal recording with expanded playback Patent [NASA-CASE-ARC-10003-1]	c09 N71-25866	Intumescent-ablator coatings using endothermic fillers [NASA-CASE-ARC-11043-1]	c24 N78-27180
SANDERS, B. W. Airflow control system for supersonic inlets [NASA-CASE-LEW-11188-1]	c02 N74-20646	Structural wood panels with improved fire resistance [NASA-CASE-ARC-11174-1]	c24 N78-28178
SANDFORD, H. C. Solar cell angular position transducer [NASA-CASE-LAR-11999-1]	c35 N78-18394	Ambient cure polyimide foams [NASA-CASE-ARC-11170-1]	c27 N79-11215
SANDROCK, G. D. High temperature cobalt-base alloy Patent [NASA-CASE-XLE-02991]	c17 N71-16025	SAUER, C. D. Control for nuclear thermionic power source [NASA-CASE-NPO-13114-2]	c73 N78-28913
High temperature ferromagnetic cobalt-base alloy Patent [NASA-CASE-XLE-03629]	c17 N71-23248	SAWYER, D. E. Semiconductor-ferroelectric memory device [NASA-CASE-ERC-10307]	c08 N72-21198
Cobalt-base alloy [NASA-CASE-LEW-10436-1]	c17 N73-32415	Fabrication of single crystal film semiconductor devices [NASA-CASE-ERC-10222]	c09 N72-22199
SANDSTROM, D. B. Fabrication of single crystal film semiconductor devices [NASA-CASE-ERC-10222]	c09 N72-22199	SAWYER, J. T. Leak detector [NASA-CASE-NFS-21761-1]	c35 N75-15931
SANKO, P. H. Fire protection covering for small diameter missiles [NASA-CASE-ARC-11104-1]	c15 N78-13110	SCAPICCHIO, A. J. Apparatus and method for separating a semiconductor wafer Patent [NASA-CASE-ERC-10138]	c26 N71-14354
SANTARPIA, D. Dually mode locked Nd:YAG laser [NASA-CASE-GSC-11746-1]	c36 N75-19654	SCHACH, H. Apparatus for controlling the temperature of balloon-borne equipment [NASA-CASE-GSC-11620-1]	c34 N74-23039
SARBOLOUKI, H. H. Photomechanical transducer [NASA-CASE-NPO-14363-1]	c76 N79-14908	SCHACHT, W. F. Water cooled contactor for anode in carbon arc mechanism [NASA-CASE-XMS-03700]	c15 N69-24266
SARIGSSON, D. F. Gas turbine engine with convertible accessories [NASA-CASE-LEW-12390-1]	c07 N78-17056	SCHACHTER, H. H. Apparatus for producing three-dimensional recordings of fluorescence spectra Patent [NASA-CASE-XGS-01231]	c14 N70-41676
Integrated gas turbine engine-nacelle [NASA-CASE-LEW-12389-2]	c07 N78-18066	SCHAEFER, D. B. Binary magnetic memory device Patent [NASA-CASE-XGS-00174]	c08 N70-34743
Integrated gas turbine engine-nacelle [NASA-CASE-LEW-12389-3]	c07 N79-14096	Logarithmic converter Patent [NASA-CASE-XLA-00471]	c08 N70-34778
SATER, B. L. Method of cold welding using ion beam technology [NASA-CASE-LEW-12982-1]	c37 N78-28459	Full binary adder Patent [NASA-CASE-XGS-00689]	c08 N70-34787
SAUER, L. S. Hybrid lubrication system and bearing Patent [NASA-CASE-XNP-01641]	c15 N71-22997	Ripple add and ripple subtract binary counters Patent [NASA-CASE-XGS-04766]	c08 N71-18602
SAUER, R. L. Automatic biowaste sampling		Computing apparatus Patent [NASA-CASE-XGS-04765]	c08 N71-18693
		Signal detection and tracking apparatus Patent [NASA-CASE-XGS-03502]	c10 N71-20852

INVENTOR INDEX

SCHREDDER, K. D.

- Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751
- Memory device for two-dimensional radiant energy array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709
- SCHAEFER, G. J.
Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410
- SCHAEER, G. H.
Method of making porous conductive supports for electrodes
[NASA-CASE-GSC-11367-1] c44 N74-19692
- SCHAEFFER, G. L.
Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent
[NASA-CASE-ARC-10137-1] c09 N71-28468
- SCHAEFFERT, J. C.
Ultra-long monostable multivibrator employing bistable semiconductor switch to allow charging of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819
- SCHALLER, H. C.
Apparatus for vibrational testing of articles
[NASA-CASE-GSC-11302-1] c14 N73-13416
- SCHAPPERT, G. T.
Method and apparatus for wavelength tuning of liquid lasers
[NASA-CASE-ERC-10187] c16 N69-31343
- SCHAUS, R. E.
Thermobulb mount Patent
[NASA-CASE-NPO-10158] c33 N71-16356
- SCHIEBE, H.
Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MPS-21163-1] c54 N74-17853
- SCHIEBLEY, D. W.
Flexible formulated plastic separators for alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552
- SCHILL, J. T.
Cryogenic thermal insulation Patent
[NASA-CASE-IXP-05046] c33 N71-28892
- SCHER, H. P.
Spacecraft attitude control method and apparatus
[NASA-CASE-HQN-10439] c21 N72-21624
- SCHER, S. H.
Hot air balloon deceleration and recovery system Patent
[NASA-CASE-XLA-06824-2] c02 N71-11037
- SCHIFFNER, G.
Power supply for carbon dioxide lasers
[NASA-CASE-GSC-11222-1] c16 N73-32391
- SCHINDLER, R. A.
Interferometer direction sensor Patent
[NASA-CASE-NPO-10320] c14 N71-17655
Interferometer servo system Patent
[NASA-CASE-NPO-10300] c14 N71-17662
Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040
Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391
Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395
Velocity servo for continuous scan Fourier interference spectrometer
[NASA-CASE-NPO-14093-1] c74 N78-22891
Apparatus for providing a servo drive signal in a high-speed stepping interferometer
[NASA-CASE-NPO-13569-2] c35 N79-14348
- SCHLESINGER, P. W.
Optical alignment system Patent
[NASA-CASE-IXP-02029] c14 N70-41955
- SCHLOSS, A. L.
Solid state switch
[NASA-CASE-IXP-09228] c09 N69-27500
- SCHMIDT, R. E.
Caterpillar micro positioner
[NASA-CASE-GSC-10780-1] c14 N72-16283
- SCHMIDT, H. W.
Conical valve plug Patent
[NASA-CASE-XLE-00715] c15 N70-34859
Fluid coupling Patent
[NASA-CASE-XLE-00397] c15 N70-36492
- SCHMIDT, K. C.
Radiation and particle detector and amplifier
[NASA-CASE-NPO-12128-1] c14 N73-32317
- SCHMIDT, L. P.
Photosensitive device to detect bearing deviation Patent
[NASA-CASE-IXP-00438] c21 N70-35089
Light sensor
[NASA-CASE-NPO-11311] c14 N72-25414
Sun direction detection system
[NASA-CASE-NPO-13722-1] c74 N77-22951
- SCHMIDT, R.
Reactance control system Patent
[NASA-CASE-IXP-01598] c21 N71-15583
- SCHMIDT, R. P.
Monopulse system with an electronic scanner
[NASA-CASE-XGS-05582] c07 N69-27460
Electronic scanning of 2-channel monopulse patterns Patent
[NASA-CASE-GSC-10299-1] c09 N71-24804
Dish antenna having switchable beamwidth
[NASA-CASE-GSC-11760-1] c33 N75-19516
Single frequency, two feed dish antenna having switchable beamwidth
[NASA-CASE-GSC-11968-1] c32 N76-15329
Variable beamwidth antenna
[NASA-CASE-GSC-11862-1] c32 N76-18295
Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472
- SCHMIDT, W. G.
Ammonium perchlorate composite propellant containing an organic transitional metal chelate catalytic additive Patent
[NASA-CASE-LAR-10173-1] c27 N71-14090
- SCHMITT, A. L.
Sun angle calculator
[NASA-CASE-HSC-12617-1] c35 N76-29552
- SCHMITZ, B. W.
Trajectory-correction propulsion system Patent
[NASA-CASE-IXP-01104] c28 N70-39931
- SCHMITZ, P. H.
Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130
- SCHNEIDER, R. T.
Non-equilibrium radiation nuclear reactor
[NASA-CASE-HQN-10841-1] c73 N78-19920
Safety flywheel
[NASA-CASE-HQN-10888-1] c44 N79-14527
- SCHNEIDER, W. C.
Auger attachment method for insulation
[NASA-CASE-HSC-12615-1] c37 N76-19437
- SCHNITZER, E.
Inflatable honeycomb Patent
[NASA-CASE-XLA-00204] c32 N70-36536
Manned space station Patent
[NASA-CASE-XLA-00258] c31 N70-38676
Method of making inflatable honeycomb Patent
[NASA-CASE-XLA-03492] c15 N71-22713
- SCHNOPPER, H. W.
Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer
[NASA-CASE-IXP-05231] c14 N73-28491
- SCHORN, A. H.
Honeycomb panels formed of minimal surface periodic tubule layers
[NASA-CASE-ERC-10364] c18 N72-25540
Honeycomb core structures of minimal surface tubule sections
[NASA-CASE-ERC-10363] c18 N72-25541
Expandable space frames
[NASA-CASE-ERC-10365-1] c31 N73-32749
- SCHOLL, J. A.
Method of forming shapes from planar sheets of thermosetting materials
[NASA-CASE-NPO-11036] c15 N72-24522
- SCHORUM, S. W.
High speed binary to decimal conversion system Patent
[NASA-CASE-XGS-01230] c08 N71-19544
- SCHRAEDER, J. H.
Multiple input radio receiver Patent
[NASA-CASE-XLA-00901] c07 N71-10775
Cooperative Doppler radar system Patent
[NASA-CASE-LAR-10403] c21 N71-11766
Apparatus for aiding a pilot in avoiding a midair collision between aircraft
[NASA-CASE-LAR-10717-1] c21 N73-30641
- SCHREDDER, K. D.
Broadband stable power multiplier Patent
[NASA-CASE-IXP-10854] c10 N71-26331

- SCHUBERT, P. H.
Iodine generator for reclaimed water purification
[NASA-CASE-MSC-14632-1] c54 N78-14784
- SCHUBERT, P. H.
Sprayable low density ablator and application
process
[NASA-CASE-MFS-23506-1] c24 N78-24290
- SCHULLER, P. T.
Journal bearings
[NASA-CASE-LEW-11076-1] c37 N74-21061
Journal Bearings
[NASA-CASE-LEW-11076-2] c37 N74-32921
Lubricated journal bearing
[NASA-CASE-LEW-11076-3] c37 N75-30562
Fluid journal bearings
[NASA-CASE-LEW-11076-4] c37 N76-15461
- SCHUMACHER, L. L.
Wide angle sun sensor
[NASA-CASE-NPO-13327-1] c35 N75-23910
- SCHUSTER, D. H.
Antenna beam-shaping apparatus Patent
[NASA-CASE-IMP-00611] c09 N70-35219
Parabolic reflector horn feed with spillover
correction Patent
[NASA-CASE-IMP-00540] c09 N70-35382
Insertion loss measuring apparatus having
transformer means connected across a pair of
bolometers Patent
[NASA-CASE-IMP-01193] c10 N71-16057
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Solid state television camera system Patent
[NASA-CASE-IMP-06092] c07 N71-24612
- SCHUTT, J. B.
Alkali-metal silicate protective coating
[NASA-CASE-IGS-04119] c18 N69-39979
Fire resistant coating composition Patent
[NASA-CASE-GSC-10072] c18 N71-14014
Method for etching copper Patent
[NASA-CASE-IGS-06306] c17 N71-16044
Alkali metal silicate protective coating Patent
[NASA-CASE-IGS-04799] c18 N71-24183
Phototropic composition of matter
[NASA-CASE-IGS-03736] c14 N72-22443
Potassium silicate zinc coatings
[NASA-CASE-GSC-10361-1] c18 N72-23581
Ultraviolet light reflective coating
[NASA-CASE-GSC-11786-1] c24 N76-24363
Remote sensing of vegetation and soil using
microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529
Alkali-metal silicate binders and methods of
manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217
- SCHUTZENHOFER, L. A.
Apparatus for reducing aerodynamic noise in a
wind tunnel
[NASA-CASE-MFS-23099-1] c09 N76-23273
- SCHWAB, W. B.
Solid state power mapping instrument Patent
[NASA-CASE-XLE-00301] c14 N70-36808
Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-1] c31 N78-17237
Closed loop spray cooling apparatus
[NASA-CASE-LEW-11981-2] c34 N79-20336
- SCHWARTZ, I. E.
Abating exhaust noises in jet engines
[NASA-CASE-ARC-10712-1] c07 N74-33218
- SCHWARZ, P. C.
Saturation current protection apparatus for
saturable core transformers Patent
[NASA-CASE-ERC-10075] c09 N71-24800
Unsaturating saturable core transformer Patent
[NASA-CASE-ERC-10125] c09 N71-24893
Saturation current protection apparatus for
saturable core transformers
[NASA-CASE-ERC-10075-2] c09 N72-22196
Load-insensitive electrical device
[NASA-CASE-IER-11046] c09 N72-22203
Analog Signal to Discrete Time Interval
Converter (ASDTIC)
[NASA-CASE-ERC-10048] c09 N72-25251
Controllable load insensitive power converters
[NASA-CASE-ERC-10268] c09 N72-25252
Load insensitive electrical device
[NASA-CASE-IER-11046-2] c33 N74-22864
- SCHWINGHAUER, B. J.
Angular measurement system Patent
[NASA-CASE-IMP-00447] c14 N70-33179
- Space vehicle electrical system Patent
[NASA-CASE-IMP-00517] c03 N70-34157
Electrical discharge apparatus for forming Patent
[NASA-CASE-IMP-00375] c15 N70-34249
Electro-optical alignment control system Patent
[NASA-CASE-IMP-00908] c14 N70-40238
Method and apparatus for precision sizing and
joining of large diameter tubes Patent
[NASA-CASE-IMP-05114] c15 N71-17650
Magnetomotive metal working device Patent
[NASA-CASE-IMP-03793] c15 N71-24833
Method and apparatus for precision sizing and
joining of large diameter tubes Patent
[NASA-CASE-IMP-05114-3] c15 N71-24865
Method and apparatus for precision sizing and
joining of large diameter tubes Patent
[NASA-CASE-IMP-05114-2] c15 N71-26148
- SCHWUTKE, G. H.
Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984
- SCIACCA, T. P.
Device for measuring electron-beam intensities
and for subjecting materials to electron
irradiation in an electron microscope
[NASA-CASE-IGS-01725] c14 N69-39982
- SCOGGINS, J. B.
Meteorological balloon Patent
[NASA-CASE-IMP-04163] c02 N71-23007
- SCOTT, C. E.
Magnifying scratch gage force transducer
[NASA-CASE-LAR-10496-1] c14 N72-22433
- SCOTT, C. M.
Inflatable transpiration cooled nozzle
[NASA-CASE-MFS-20619] c28 N72-11708
- SCOTT, R. F.
Burrowing apparatus
[NASA-CASE-IMP-07169] c15 N73-32362
- SCOTT, R. R.
Solar cell including second surface mirrors Patent
[NASA-CASE-NPO-10109] c03 N71-11049
- SCOTT, S. G.
Nonmagnetic thermal motor for a magnetometer
[NASA-CASE-IAR-03786] c09 N69-21313
- SCOTT, W. L.
Tactile sensing means for prosthetic limbs
[NASA-CASE-MFS-16570-1] c05 N73-32013
- SCOW, J.
Multiple circuit switch apparatus with improved
pivot actuator structure Patent
[NASA-CASE-IAC-03777] c10 N71-15909
- SCROOF, P. R.
Relief container
[NASA-CASE-IHS-06761] c05 N69-23192
- SCUDDER, L. R.
Application of semiconductor diffusants to solar
cells by screen printing
[NASA-CASE-LEW-12775-1] c44 N79-11468
- SCULLY, P. T.
Collapsible reflector Patent
[NASA-CASE-IHS-03454] c09 N71-20658
- SEA, R. G.
Junction range finder
[NASA-CASE-KSC-10108] c14 N73-25461
- SEATON, A. F.
Phase multiplying electronic scanning system
Patent
[NASA-CASE-NPO-10302] c10 N71-26142
Virtual wall slot circularly polarized planar
array antenna
[NASA-CASE-NPO-10301] c07 N72-11148
Conical reflector antenna
[NASA-CASE-NPO-10303] c07 N72-22127
- SEATON, S. L.
Electrostatic plasma modulator for space vehicle
re-entry communication Patent
[NASA-CASE-XLA-01400] c07 N70-41331
Means for communicating through a layer of
ionized gases Patent
[NASA-CASE-XLA-01127] c07 N70-41372
Method for measuring the characteristics of a
gas Patent
[NASA-CASE-XLA-03375] c16 N71-24074
Laser calibrator Patent
[NASA-CASE-XLA-03410] c16 N71-25914
- SEAY, B. P., JR.
Burst synchronization detection system Patent
[NASA-CASE-IHS-05605-1] c10 N71-19468
- SEBACHER, D. I.
Solar hydrogen generator

INVENTOR INDEX

SHFIBLEY, D. W.

[NASA-CASE-LAR-11361-1] c44 N77-22607
SECKEL, E.
 Integrated lift/drag controller for aircraft
 [NASA-CASE-ARC-10456-1] c05 N75-12930
SECRETAN, L.
 Rotary bead dropper and selector for testing
 micrometeorite detectors Patent
 [NASA-CASE-IGS-03304] c09 N71-22988
SEEGMILLER, H. L. B.
 Inertia diaphragm pressure transducer Patent
 [NASA-CASE-YAC-02981] c14 N71-21072
SEIDENBERG, B.
 Method and apparatus for determining the
 contents of contained gas samples
 [NASA-CASE-GSC-10903-1] c14 N73-12444
 Low outgassing polydimethylsiloxane material and
 preparation thereof
 [NASA-CASE-GSC-11358-1] c06 N73-26100
SEILER, E. E.
 Method for leakage testing of tanks Patent
 [NASA-CASE-IMP-02392] c32 N71-24285
SEITZ, T. E.
 Heat activated cell with alkali anode and alkali
 salt electrolyte Patent
 [NASA-CASE-LEW-11358] c03 N71-26084
SEITZINGER, V. F.
 Unfired-ceramic flame-resistant insulation and
 method of making the same Patent
 [NASA-CASE-IMP-01030] c18 N70-41583
 Ceramic insulation for radiant heating
 environments and method of preparing the same
 Patent
 [NASA-CASE-MFS-14253] c33 N71-24858
SELICK, H. K.
 Solar energy collection system
 [NASA-CASE-NPO-13810-1] c44 N77-32582
 Non-tracking solar energy collector system
 [NASA-CASE-NPO-13813-1] c44 N78-31526
 Non-tracking solar energy collector system
 [NASA-CASE-NPO-13817-1] c44 N79-11471
 An improved solar energy receiver for a stirling
 engine
 [NASA-CASE-NPO-14619-1] c44 N79-20513
SELLEN, J. H., JR.
 Method and apparatus for measuring potentials in
 plasmas Patent
 [NASA-CASE-XLE-00821] c25 N71-15650
 Apparatus for field strength measurement of a
 space vehicle Patent
 [NASA-CASE-XLE-00820] c14 N71-16014
 Apparatus for measuring electric field strength
 on the surface of a model vehicle Patent
 [NASA-CASE-XLE-02038] c09 N71-16086
SENSEBY, R. E.
 Penetrator nozzle
 [NASA-CASE-KSC-11064-1] c34 N78-22328
SERAPINI, T. T.
 Preparation of polyimides from mixtures of
 monomeric diamines and esters of
 polycarboxylic acids
 [NASA-CASE-LEW-11325-1] c06 N73-27980
SEVART, F. D.
 Miniature hydraulic actuator
 [NASA-CASE-LAB-11522-1] c34 N74-34881
SEWARD, H. H.
 Compact spectroradiometer
 [NASA-CASE-BQN-10683] c14 N71-34389
 Two color horizon sensor
 [NASA-CASE-ERC-10174] c14 N72-25409
SEYFFERT, H. B.
 Controlled glass bead peening Patent
 [NASA-CASE-XLA-07390] c15 N71-18616
SEYL, J. W.
 Dynamic Doppler simulator Patent
 [NASA-CASE-XNS-05454-1] c07 N71-12391
SHADY, D. L.
 Device for tensioning test specimens within an
 hermetically sealed chamber
 [NASA-CASE-MFS-23281-1] c35 N77-22450
SHARPER, D. H.
 Analog to digital converter for two-dimensional
 radiant energy array computers
 [NASA-CASE-GSC-11839-3] c60 N77-32731
SHAPER, J. I.
 Solid propellant rocket motor nozzle
 [NASA-CASE-NPO-11458] c28 N72-23810
 Solid propellant rocket motor
 [NASA-CASE-NPO-11559] c28 N73-24784
 Preparing oxidizer coated metal fuel particles
 [NASA-CASE-NPO-11975-1] c28 N74-33209
 Solid propellant motor
 [NASA-CASE-NPO-11458A] c20 N78-32179
SHAPFER, C. V.
 Active RC networks
 [NASA-CASE-ARC-10042-2] c10 N72-11256
 Multiloop RC active filter apparatus having low
 parameter sensitivity with low amplifier gain
 [NASA-CASE-ARC-10192] c09 N72-12485
SHAI, C. H.
 Alkali-metal silicate protective coating
 [NASA-CASE-XGS-04119] c18 N69-39979
 Alkali metal silicate protective coating Patent
 [NASA-CASE-XGS-04799] c18 N71-24183
SHAI, H. C.
 Electrically conductive thermal control coatings
 [NASA-CASE-GSC-12207-1] c24 N79-14156
SHALTENS, R. K.
 Method and apparatus for sputtering utilizing an
 apertured electrode and a pulsed substrate bias
 [NASA-CASE-LEW-10920-1] c17 N73-24569
SHANKAR, W. K.
 Ultraprecise calibrated light source
 [NASA-CASE-MSC-12293-1] c14 N72-27411
SHANNON, R. L.
 Plasma cleaning device
 [NASA-CASE-MFS-22906-1] c75 N78-27913
SHAPIRO, H.
 Omni-directional anisotropic molecular-trap Patent
 [NASA-CASE-XGS-00783] c30 N71-17788
 Trap for preventing diffusion pump backstreaming
 [NASA-CASE-GSC-10518-1] c15 N72-22489
SHARPE, H. H.
 Stainless steel panel for selective absorption
 of solar energy and the method of producing
 said panel
 [NASA-CASE-MFS-23518-2] c44 N77-31611
 Sprayable low density ablator and application
 process
 [NASA-CASE-MFS-23506-1] c24 N78-24290
 Stainless steel panel for selective absorption
 of solar energy and the method of producing
 said panel
 [NASA-CASE-MFS-23518-3] c44 N78-25557
 Cork-resin ablative insulation for complex
 surfaces and method for applying the same
 [NASA-CASE-MFS-23626-1] c24 N78-32190
 Method for making an aluminum or copper
 substrate panel for selective absorption of
 solar energy
 [NASA-CASE-MFS-23518-1] c44 N79-11469
SHATZSKY, R.
 Tape guidance system and apparatus for the
 provision thereof Patent
 [NASA-CASE-IMP-09453] c08 N71-19420
SHATTUCK, B. D.
 Protection of serially connected solar cells
 against open circuits by the use of shunting
 diode Patent
 [NASA-CASE-XLE-04535] c03 N71-23354
SHAW, C. S.
 Exhaust flow deflector
 [NASA-CASE-LAR-11570-1] c34 N76-18364
SHAW, G. C.
 Recovery of aluminum and binder from composite
 propellants
 [NASA-CASE-NPO-14110-1] c28 N79-10225
 Process for the leaching of AP from propellant
 [NASA-CASE-NPO-14109-1] c28 N79-10227
SHEETS, R. E.
 Detector absorptivity measuring method and
 apparatus
 [NASA-CASE-LAR-10907-1] c35 N76-29551
SHEFSIEK, P. E.
 Method and apparatus for distillation of liquids
 Patent
 [NASA-CASE-IMP-08124] c15 N71-27184
 Method for distillation of liquids
 [NASA-CASE-IMP-08124-2] c06 N73-13129
SHFIBLEY, D. W.
 Gels as battery separators for soluble
 electrode cells
 [NASA-CASE-LEW-12364-1] c44 N77-22606
 In situ self cross-linking of polyvinyl alcohol
 battery separators
 [NASA-CASE-LEW-12972-1] c23 N78-22157
 Formulated plastic separators for soluble
 electrode cells

- [NASA-CASE-LEW-12358-2] c25 N78-25149
Inorganic-organic separators for alkaline batteries
- [NASA-CASE-LEW-12649-1] c44 N78-25530
Method of cross-linking polyvinyl alcohol and other water soluble resins
- [NASA-CASE-LEW-13103-1] c25 N79-14172
In-situ cross-linking of polyvinyl alcohol
- [NASA-CASE-LEW-13135-1] c25 N79-14174
Formulated plastic separators for soluble electrode cells
- [NASA-CASE-LEW-12358-1] c44 N79-17313
SHELPUK, B.
Double-sided solar cell package
[NASA-CASE-NPO-14199-1] c44 N78-22470
- SHELTON, G. B.
Notch filter
[NASA-CASE-MFS-23303-1] c32 N77-18307
System for the measurement of ultra-low stray light levels
[NASA-CASE-MFS-23513-1] c74 N79-11865
- SHELTON, J. P., JR.
Monopulse tracking system Patent
[NASA-CASE-IGS-01155] c10 N71-21483
- SHELTON, R. D.
Electron beam instrument for measuring electric fields. Patent
[NASA-CASE-XNP-10289] c14 N71-23699
- SHEPARD, C. E.
Electric arc apparatus Patent
[NASA-CASE-IAC-01677] c09 N71-20816
- SHEPARD, L. P.
Space suit
[NASA-CASE-MSC-12609-1] c05 N73-32012
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An improved solar cell module
[NASA-CASE-NPO-14467-1] c44 N79-10529
- SHEPARD, S. K.
Peak polarity selector Patent
[NASA-CASE-FRC-10010] c10 N71-24862
- SHERBURNE, A. E.
Capacitive tank gaging apparatus being independent of liquid distribution
[NASA-CASE-MFS-21629] c14 N72-22442
- SHERREY, J. E.
Bonded elastomeric seal for electrochemical cells Patent
[NASA-CASE-IGS-02631] c03 N71-23006
Frangible electrochemical cell
[NASA-CASE-IGS-10010] c03 N72-15986
Process for making sheets with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c37 N75-26371
- SHERMAN, A.
Annular slit colloid thruster Patent
[NASA-CASE-GSC-10709-1] c28 N71-25213
- SHERWIN, E. J.
Bonding thermoelectric elements to nonmagnetic refractory metal electrodes
[NASA-CASE-IGS-04554] c15 N69-39786
- SHETH, S.
Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213
Process for spinning flame retardant elastomeric compositions
[NASA-CASE-MSC-14331-3] c27 N78-32262
- SHETH, S. G.
Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405
- SHEWMAKE, G. A.
Life raft Patent
[NASA-CASE-XMS-00863] c05 N70-34857
Life preserver Patent
[NASA-CASE-XMS-00864] c05 N70-36493
Inflatable radar reflector unit Patent
[NASA-CASE-XMS-00893] c07 N70-40063
Rescue litter flotation assembly Patent
[NASA-CASE-XMS-04170] c05 N71-22748
- SHIEBER, R.
Prestressed refractory structure Patent
[NASA-CASE-XNP-02888] c18 N71-21068
- SHIGEMOTO, P. H.
Laser fluid velocity detector Patent
[NASA-CASE-XAC-10770-1] c16 N71-24828
- SHILLINGER, G. L., JR.
Spring operated accelerator and constant force spring mechanism therefor
- [NASA-CASE-ARC-10898-1] c35 N77-18417
SHIN, I. H.
Recorder/processor apparatus
[NASA-CASE-GSC-11553-1] c35 N74-15831
- SHIMA, R.
Multitarget sequential sputtering apparatus
[NASA-CASE-NPO-13345-1] c37 N75-19684
- SHINADA, K.
Thermionic diode switch Patent
[NASA-CASE-NPO-10404] c03 N71-12255
Cavity emitter for thermionic converter Patent
[NASA-CASE-NPO-10412] c09 N71-28421
Thermal to electrical power conversion system with solid-state switches with Seebeck effect compensation
[NASA-CASE-NPO-11388] c03 N72-23048
Electric power generation system directory from laser power
[NASA-CASE-NPO-13308-1] c36 N75-30524
Thermostatically controlled non-tracking type solar energy concentrator
[NASA-CASE-NPO-13497-1] c44 N76-14602
- SHIMODA, K.
Method and apparatus for stabilizing a gaseous optical maser Patent
[NASA-CASE-IGS-03644] c16 N71-18614
- SHIBA, C. S.
Method of heat treating age-hardenable alloys
[NASA-CASE-XNP-01311] c26 N75-29236
- SHIRE, L. I.
Direct heating surface combustor
[NASA-CASE-LEW-11877-1] c34 N78-27357
- SHLOSINGER, A. P.
Heat pipe with dual working fluids
[NASA-CASE-ARC-10198] c34 N78-17336
Multi-chamber controllable heat pipe
[NASA-CASE-ARC-10199] c34 N78-17337
- SHORES, P. W.
Position determination systems
[NASA-CASE-MSC-12593-1] c17 N76-21250
- SHORTBRIDGE, S. R.
Switching circuit employing regeneratively connected complementary transistors Patent
[NASA-CASE-XNP-02654] c10 N70-42032
- SHRIVER, C. B.
Method of making a filament-wound container Patent
[NASA-CASE-XLE-03803-2] c15 N71-17651
Filament wound container Patent
[NASA-CASE-XLE-03803] c15 N71-23816
Panelized high performance multilayer insulation Patent
[NASA-CASE-MFS-14023] c33 N71-25351
- SHRIVER, C. L.
Multichannel logarithmic RF level detector
[NASA-CASE-LAR-11021-1] c32 N76-14321
- SHRIVER, E. L.
Apparatus for determining the deflection of an electron beam impinging on a target Patent
[NASA-CASE-XNP-06617] c09 N71-24843
Shock wave convergence apparatus
[NASA-CASE-MFS-20890] c14 N72-22439
Self-energized plasma compressor
[NASA-CASE-MFS-22145-1] c75 N75-13625
Two stage light gas-plasma projectile accelerator
[NASA-CASE-MFS-22287-1] c75 N76-14931
Self-energized plasma compressor
[NASA-CASE-MFS-22145-2] c75 N76-17951
Charge injection method and apparatus of producing large area electrets
[NASA-CASE-MFS-23186-1] c33 N76-23483
Semiconductor projectile impact detector
[NASA-CASE-MFS-23008-1] c35 N78-18390
Charge injection method and apparatus of producing large area electrets
[NASA-CASE-MFS-23186-2] c24 N78-25137
- SHROCK, C. G.
Determination of antimicrobial susceptibilities on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750
- SHUBE, R. E.
Nose cone mounted heat resistant antenna Patent
[NASA-CASE-XMS-04312] c07 N71-22984
- SHULMAN, A. E.
Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence
[NASA-CASE-GSC-11133-1] c23 N72-11568
Method and apparatus for producing an image from a transparent object

INVENTOR INDEX

SINGER, S.

[NASA-CASE-GSC-11989-1] c74 N77-28932
SHUMATE, M. S.
 Method and apparatus for aligning a laser beam projector Patent
 [NASA-CASE-NPO-11087] c23 N71-29125
 Differential optoacoustic absorption detector
 [NASA-CASE-NPO-13759-1] c74 N78-17867
 Stark cell optoacoustic detection of constituent gases in sample
 [NASA-CASE-NPO-14143-1] c25 N79-10169
SPIRKA, A.
 Space-charge-limited solid-state triode
 [NASA-CASE-NPO-13064-1] c33 N79-11314
SHURE, L. I.
 Protected isotope heat source
 [NASA-CASE-LEW-11227-1] c73 N75-30876
SHUTE, D. I.
 Reference apparatus for medical ultrasonic transducer
 [NASA-CASE-ARC-10753-1] c54 N75-27760
SIDMAN, K. R.
 Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
 [NASA-CASE-MSC-14331-1] c27 N76-24405
 Flame retardant spandex type polyurethanes
 [NASA-CASE-MSC-14331-2] c27 N78-17213
 Flame retardant formulations and products produced therefrom
 [NASA-CASE-MSC-16307-1] c25 N78-27232
 Process for spinning flame retardant elastomeric compositions
 [NASA-CASE-MSC-14331-3] c27 N78-32262
SIDORAK, L. G.
 Solar cell shingle
 [NASA-CASE-LEW-12587-1] c44 N77-31601
SIEBERT, C. J.
 Flexible/rigidifiable cable assembly
 [NASA-CASE-MSC-13512-1] c15 N72-22485
SIEGEL, E.
 Resonant infrasonic gauging apparatus
 [NASA-CASE-MSC-11847-1] c14 N72-11363
SIEGMAN, A. E.
 Laser system with an antiresonant optical ring
 [NASA-CASE-HQN-10844-1] c36 N75-19653
SIERADSKI, L. H.
 Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump
 [NASA-CASE-NPO-13663-1] c35 N77-14406
SIEWERT, R. D.
 Fine particulate capture device
 [NASA-CASE-LEW-11583-1] c35 N79-17192
SIGALLA, A.
 Aircraft design concept
 [NASA-CASE-LAR-11852-1] c05 N77-15027
SIGFRED, J.
 Length controlled stabilized mode-lock Nd:YAG laser
 [NASA-CASE-GSC-11571-1] c36 N77-25499
SIGNORELLI, E. A.
 Reinforced metallic composites Patent
 [NASA-CASE-XLE-02428] c17 N70-33288
 Method of making fiber reinforced metallic composites Patent
 [NASA-CASE-XLE-00231] c17 N70-38198
 Method of making fiber composites
 [NASA-CASE-LEW-10424-2-2] c18 N72-25539
SIKORA, P. F.
 High temperature testing apparatus Patent
 [NASA-CASE-XLE-00335] c14 N70-35368
SIKORA, D. J.
 Apparatus for overcurrent protection of a push-pull amplifier Patent
 [NASA-CASE-MSC-12033-1] c09 N71-13531
SILVER, E. H.
 Means and method of measuring viscoelastic strain Patent
 [NASA-CASE-XNP-01153] c32 N71-17645
 Miniature stress transducer Patent
 [NASA-CASE-XNP-02983] c14 N71-21091
 Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test
 [NASA-CASE-NPO-10778] c14 N72-11364
 Subminiature insertable force transducer
 [NASA-CASE-NPO-13423-1] c33 N75-31329
 Strain gage mounting assembly
 [NASA-CASE-NPO-13170-1] c35 N76-14430
 Miniature muscle displacement transducer
 [NASA-CASE-NPO-13519-1] c33 N76-19338
 Myocardium wall thickness transducer and measuring method
 [NASA-CASE-NPO-13644-1] c52 N76-29895
 Catheter tip force transducer for cardiovascular research
 [NASA-CASE-NPO-13643-1] c52 N76-29896
SILVERMAN, J. E.
 Programmable telemetry system Patent
 [NASA-CASE-GSC-10131-1] c07 N71-24624
SILVERTSON, W. E., JR.
 Logical function generator
 [NASA-CASE-XLA-05099] c09 N73-13209
SINAS, V. R.
 Optimum predetection diversity receiving system Patent
 [NASA-CASE-IGS-00740] c07 N71-23098
SINMONDS, H. E.
 Self-contained breathing apparatus
 [NASA-CASE-MSC-14733-1] c54 N76-24900
SINMONDS, P. G.
 Atmospheric sampling devices
 [NASA-CASE-NPO-11373] c13 N72-25323
 Electrolytic gas operated actuator
 [NASA-CASE-NPO-11369] c15 N73-13467
 Compact hydrogenator
 [NASA-CASE-NPO-11682-1] c35 N74-15127
SINMONDS, R. C.
 Subcutaneous channeling probe
 [NASA-CASE-ARC-11091-1] c52 N79-11684
SINMONS, G. H.
 Preparing oxidizer coated metal fuel particles
 [NASA-CASE-NPO-11975-1] c28 N74-33209
SINMONS, W. H.
 Indexed keyed connection Patent
 [NASA-CASE-XMS-02532] c15 N70-41808
SINOW, M. K.
 Data-aided carrier tracking loops
 [NASA-CASE-NPO-11282] c10 N73-16205
 Decision feedback loop for tracking a polyphase modulated carrier
 [NASA-CASE-NPO-13103-1] c32 N74-20811
 Coherent receiver employing nonlinear coherence detection for carrier tracking
 [NASA-CASE-NPO-11921-1] c32 N74-30523
SINOW, S. L.
 Temperature reducing coating for metals subject to flame exposure Patent
 [NASA-CASE-XLE-00035] c33 N71-29151
SIMPKINS, L. G.
 Television multiplexing system
 [NASA-CASE-KSC-10654-1] c07 N73-30115
SIMPSON, J. G.
 An improved solar concentrator
 [NASA-CASE-MPS-23727-1] c44 N78-13556
SIMPSON, W. E.
 Radiator deployment actuator Patent
 [NASA-CASE-MSC-11817-1] c15 N71-26611
SIMPSON, W. G.
 Space environmental work simulator Patent
 [NASA-CASE-XNF-07488] c11 N71-18773
 Stud-bonding gun
 [NASA-CASE-MPS-20299] c15 N72-11392
 Mixing insert for foam dispensing apparatus
 [NASA-CASE-MPS-20607-1] c37 N76-19436
 Sprayable low density ablator and application process
 [NASA-CASE-MPS-23506-1] c24 N78-24290
 Cork-resin ablative insulation for complex surfaces and method for applying the same
 [NASA-CASE-MPS-23626-1] c24 N78-32190
SINS, C. R.
 Multi axes vibration fixtures
 [NASA-CASE-MPS-20242] c14 N73-19421
SINCLAIR, A. E.
 Ablation sensor Patent
 [NASA-CASE-XLA-01791] c14 N71-22991
 Laser communication system for controlling several functions at a location remote to the laser
 [NASA-CASE-LAR-10311-1] c16 N73-16536
 Automatic focus control for facsimile cameras
 [NASA-CASE-LAR-11213-1] c35 N75-15014
SINGER, S.
 Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof
 [NASA-CASE-NPO-10557] c27 N78-17214

SINGH, J. J.
Mossbauer spectrometer radiation detector
[NASA-CASE-LAR-11155-1] c35 N74-15091

SIROCKY, P. J.
Apparatus for transferring cryogenic liquids
Patent
[NASA-CASE-XLE-00345] c15 N70-38020

SIVERTSON, W. E., JR.
Adaptive compression of communication signals
Patent
[NASA-CASE-XLA-03076] c07 N71-11266
Rate data encoder
[NASA-CASE-LAR-10128-1] c08 N73-20217
Method of locating persons in distress
[NASA-CASE-LAR-11390-1] c32 N77-21267
Radar target remotely sensing hydrological phenomena
[NASA-CASE-LAR-12344-1] c43 N78-33511

SIVITER, J. H., JR.
Micrometeoroid penetration measuring device Patent
[NASA-CASE-XLA-00941] c14 N71-23240

SIVLEY, J. B.
Phase locked phase modulator including a voltage controlled oscillator Patent
[NASA-CASE-XNP-05382] c10 N71-23544

SIZEMORE, K. O.
Method and apparatus for battery charge control
Patent
[NASA-CASE-XGS-05432] c03 N71-19438

SLATER, R. J.
Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164

SLATTERY, J. C.
Method and apparatus for measuring potentials in plasmas Patent
[NASA-CASE-XLE-00821] c25 N71-15650

SLAYDEN, M. D.
Pulse amplitude and width detector Patent
[NASA-CASE-XNP-06519] c09 N71-12519
Pulse rise time and amplitude detector Patent
[NASA-CASE-XNP-08804] c09 N71-24717

SLERHAN, W. C., JR.
Control for flexible parawing Patent
[NASA-CASE-XLA-06958] c02 N71-11038

SLINEP, W. S.
Particulate and solar radiation stable coating for spacecraft
[NASA-CASE-LAR-10805-2] c34 N77-18382

SLIPER, L. W., JR.
Solar cell and circuit array and process for nullifying magnetic fields Patent
[NASA-CASE-XGS-03390] c03 N71-23187

SLINEY, H. B.
Bonded solid lubricant coating Patent
[NASA-CASE-XNS-00259] c18 N70-36400
Method of making self lubricating fluoride-metal composite materials Patent
[NASA-CASE-XLE-08511-2] c18 N71-16105
Self-lubricating fluoride metal composite materials Patent
[NASA-CASE-XLE-08511] c18 N71-23710
Bearing material
[NASA-CASE-LEW-11930-1] c24 N76-22309
Bearing material
[NASA-CASE-LEW-11930-3] c24 N77-32249
Method of making bearing materials
[NASA-CASE-LEW-11930-4] c24 N79-17916

SLOVICKOWSKI, D. F.
Digital pulse width selection circuit Patent
[NASA-CASE-XLA-07788] c09 N71-29139

SMALL, J. G.
Means for visually indicating flight paths of vehicles between the Earth, Venus, and Mercury
Patent
[NASA-CASE-XNP-00708] c14 N70-35394

SMALL, W. J.
Small air breathing launch vehicle
[NASA-CASE-LAR-12250-1] c15 N78-25120

SMITH, A. B.
Method of forming thin window drifted silicon charged particle detector Patent
[NASA-CASE-XLE-00808] c24 N71-10560

SMITH, C.
Counter and shift register Patent
[NASA-CASE-XNP-01753] c08 N71-22897

SMITH, D.
Brazing alloy Patent
[NASA-CASE-XNP-03063] c17 N71-23365

SMITH, D. L.
Hall effect transducer
[NASA-CASE-LAR-10620-1] c09 N72-25255

SMITH, E. W.
Barium release system
[NASA-CASE-LAR-10670-1] c06 N73-30097
Rocket having barium release system to create ion clouds in the upper atmosphere
[NASA-CASE-LAR-10670-2] c15 N74-27360

SMITH, H. A.
Spherical tank gauge Patent
[NASA-CASE-XNS-06236] c14 N71-21007
Emergency space-suit helmet
[NASA-CASE-HSC-10954-1] c54 N78-18761
Emergency space-suit helmet
[NASA-CASE-XNS-04673-1] c54 N79-21766

SMITH, H. E.
Digital computing cardiometer
[NASA-CASE-NPS-20284-1] c52 N74-12778

SMITH, H. J.
Variable resistance constant tension and lubrication device
[NASA-CASE-KSC-10723-1] c37 N75-13265

SMITH, J. A.
Thermal insulation protection means
[NASA-CASE-HSC-12737-1] c34 N77-22423

SMITH, J. G.
Satellite personal communications system
[NASA-CASE-NPO-14480-1] c32 N78-25275

SMITH, J. F.
Energy management system for glider type vehicle
Patent
[NASA-CASE-XPR-00756] c02 N71-13421

SMITH, J. R., JR.
Balanced bellows spirometer
[NASA-CASE-XAR-01547] c05 N69-21473
Temperature compensated solid state differential amplifier Patent
[NASA-CASE-XAC-00435] c09 N70-35440
Transfer valve Patent
[NASA-CASE-XAC-01158] c15 N71-23051
Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent
[NASA-CASE-XAC-05422] c04 N71-23185

SMITH, L.
Low gravity phase separator
[NASA-CASE-HSC-14773-1] c35 N78-12390

SMITH, L. G.
Ionospheric battery Patent
[NASA-CASE-XGS-01593] c03 N70-35408

SMITH, L. H., JR.
Reverse pitch fan with divided splitter
[NASA-CASE-LEW-12760-1] c07 N77-17059

SMITH, L. S.
Polarity sensitive circuit Patent
[NASA-CASE-XNP-00952] c10 N71-23271

SMITH, M.
Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376
Fibrous refractory composite insulation
[NASA-CASE-ARC-11169-1] c24 N78-32189
Spray coating apparatus having a rotatable workpiece holder
[NASA-CASE-ARC-11110-1] c37 N78-32434

SMITH, R. W.
Compact solar still Patent
[NASA-CASE-XNS-04533] c15 N71-23086

SMITH, T. B., III
Display research collision warning system
[NASA-CASE-HQN-10703] c21 N73-13643

SMITH, W. O.
Star tracking reticles and process for the production thereof
[NASA-CASE-GSC-11188-2] c21 N73-19630
Star tracking reticles
[NASA-CASE-GSC-11188-1] c14 N73-32320
Formation of star tracking reticles
[NASA-CASE-GSC-11188-3] c74 N74-20008

SMITH, W. R.
Production of high purity I-123
[NASA-CASE-LEW-10518-1] c24 N72-33681

SMITH, W. W.
Trajectory-correction propulsion system Patent
[NASA-CASE-YNP-01104] c28 N70-39931

SHOOT, G. F.
Low gravity phase separator
[NASA-CASE-HSC-14773-1] c35 N78-12390

INVENTOR INDEX

SPRINGETT, J. C.

SHYLLIE, R. E.
Liquid-gas separator for zero gravity environment Patent
[NASA-CASE-XMS-01492] c05 N70-41297

SHYLY, H. M.
Differential pressure control
[NASA-CASE-MFS-14216] c14 N73-13418
Prosthetic urinary sphincter
[NASA-CASE-MFS-23717-1] c52 N79-14756

SNEEDEN, R. J.
Gas turbine combustion apparatus Patent
[NASA-CASE-XLB-103477-1] c28 N71-20330

SHODDY, L. G.
Insert facing tool
[NASA-CASE-MFS-21485-1] c37 N74-25968

SHYDER, J. A.
Injector for use in high voltage isolators for liquid feed lines
[NASA-CASE-MPO-11377] c15 N73-27406

SHYDER, L. H.
Particle detection apparatus including a ballistic pendulum Patent
[NASA-CASE-XMS-04201] c14 N71-22990

SHYDER, R. S.
Method of crystallization
[NASA-CASE-MFS-23001-1] c76 N77-32919

SODD, V. J.
Production of high purity I-123
[NASA-CASE-LEW-10518-1] c24 N72-33681

SOFFEN, G. A.
Automated fluid chemical analyzer Patent
[NASA-CASE-XNP-09451] c06 N71-26754

SOHL, G.
Focussing system for an ion source having apertured electrodes Patent
[NASA-CASE-XNP-03332] c09 N71-10618
Ion engine casing construction and method of making same Patent
[NASA-CASE-XNP-06942] c28 N71-23293

SOINI, H. E.
Apparatus for measuring thermal conductivity Patent
[NASA-CASE-XGS-01052] c14 N71-15992

SOKOLOVSKI, D. E.
Heat exchanger
[NASA-CASE-LEW-12252-1] c34 N79-13288

SOLOMON, G.
Error correcting method and apparatus Patent
[NASA-CASE-XNP-02748] c08 N71-22749

SOLTIS, D. G.
Method of making membranes
[NASA-CASE-XNP-04264] c03 N69-21337
Flexible formulated plastic separators for alkaline batteries
[NASA-CASE-LEW-12363-1] c44 N76-19552

SOMANO, E. B.
Durable antistatic coating for polymethylmethacrylate
[NASA-CASE-NPO-13867-1] c27 N78-14164

SOMMENSCHNEIN, C. M.
Clear air turbulence detector
[NASA-CASE-MFS-21244-1] c36 N75-15028
Focused laser Doppler velocimeter
[NASA-CASE-MFS-23178-1] c35 N77-10493

SOMMENSCHNEIN, G.
Method for attaching a fused-quartz mirror to a conductive metal substrate
[NASA-CASE-MFS-23405-1] c26 N77-29260

SORENSEN, C. E.
Electric arc device for heating gases Patent
[NASA-CASE-XAC-00319] c25 N70-41628

SORENSEN, W. E.
Wind tunnel flow generation section
[NASA-CASE-ARC-10710-1] c09 N75-12969
The engine air intake system
[NASA-CASE-ARC-10761-1] c07 N77-18154

SOTER, E. J.
Modification of one man life raft
[NASA-CASE-LAR-10241-1] c54 N74-14845

SOTHEHLUND, A. W., JR.
Single action separation mechanism Patent
[NASA-CASE-XLA-00188] c15 N71-22874

SOURS, W. P.
Minimech self-deploying boom mechanism
[NASA-CASE-GSC-10566-1] c15 N72-18477

SOVEY, J.
Hydrogen hollow cathode ion source
[NASA-CASE-LEW-12940-1] c75 N79-10894

SOVEY, J. S.
Modification of the electrical and optical properties of polymers
[NASA-CASE-LEW-13027-1] c27 N79-11216

SOWA, W. W.
Inflatable transpiration cooled nozzle
[NASA-CASE-MFS-20619] c28 N72-11708

SPADY, A. A., JR.
Backpack carrier Patent
[NASA-CASE-LAR-10056] c05 N71-12351
Reduced gravity simulator Patent
[NASA-CASE-XLA-01787] c11 N71-16028

SPAIN, I. L.
Hall effect magnetometer
[NASA-CASE-LEW-11632-2] c35 N75-13213

SPALVINS, T.
Deposition of alloy films
[NASA-CASE-LEW-11262-1] c27 N74-13270

SPARKS, R. H.
Fifth wheel
[NASA-CASE-PFC-10081-1] c37 N77-14477

SPEARMAN, H. L.
Translating horizontal tail Patent
[NASA-CASE-XLA-08801-1] c02 N71-11043

SPEISER, R. C.
Focussing system for an ion source having apertured electrodes Patent
[NASA-CASE-XNP-03332] c09 N71-10618

SPENCER, B., JR.
Variable geometry manned orbital vehicle Patent
[NASA-CASE-XLA-03691] c31 N71-15674
Variable dihedral shuttle orbiter
[NASA-CASE-LAR-10706-2] c05 N77-31132

SPENCER, D. J.
Data compression system with a minimum time delay unit Patent
[NASA-CASE-XNP-08832] c08 N71-12506

SPENCER, J. L.
Electronic strain-level counter
[NASA-CASE-LAR-10756-1] c32 N73-26910

SPENCER, P. R.
Radiation direction detector including means for compensating for photocell aging Patent
[NASA-CASE-XLA-00183] c14 N70-40239

SPENCER, R. L.
Thickness measuring and injection device Patent
[NASA-CASE-MFS-20261] c14 N71-27005
Ultrasonic scanner for radial and flat panels
[NASA-CASE-MFS-20335-1] c35 N74-10415

SPENCER, R. S.
Method of treating the surface of a glass member
[NASA-CASE-GSC-12110-1] c27 N77-32308

SPIER, R. A.
Portable milling tool Patent
[NASA-CASE-XNP-03511] c15 N71-22799
Restraint system for ergometer
[NASA-CASE-MFS-21046-1] c14 N73-27377
Tilting table for ergometer and for other biomedical devices
[NASA-CASE-MFS-21010-1] c05 N73-30078
Vee-notching device
[NASA-CASE-MFS-20730-1] c39 N74-13131

SPIES, R.
Observation window for a gas confining chamber
[NASA-CASE-NPO-10890] c11 N73-12265

SPIKER, I. K.
Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423

SPITZE, L. A.
Process for the preparation of calcium superoxide
[NASA-CASE-ARC-11053-1] c25 N79-10162

SPITZER, C. R.
Evaporant holder
[NASA-CASE-XLA-03105] c15 N69-27483
Exposure interlock for oscilloscope cameras
[NASA-CASE-LAR-10319-1] c14 N73-32322

SPITZIG, W. A.
Method of making a diffusion bonded refractory coating Patent
[NASA-CASE-XLB-01604-2] c15 N71-15610

SPRECKACE, R. F.
Method of forming a wick for a heat pipe
[NASA-CASE-NPO-13391-1] c34 N76-27515

SPRINGER, L. E.
Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N79-20751

SPRINGETT, J. C.
Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data

in a single channel Patent
[NASA-CASE-XNP-00911] c08 N70-41961

Audio system with means for reducing noise effects
[NASA-CASE-NPO-11631] c10 N73-12244

SPRINGFIELD, C. L.
Flammability test chamber Patent
[NASA-CASE-KSC-10126] c11 N71-24985

Autoignition test cell Patent
[NASA-CASE-KSC-10198] c11 N71-28629

SPROSS, F. R.
Biological isolation garment Patent
[NASA-CASE-MSC-12206-1] c05 N71-17599

SPOCK, W., III
Borehole geological assessment
[NASA-CASE-NPO-14231-1] c46 N79-19521

SQUILLARI, W.
System for stabilizing torque between a balloon
and gondola
[NASA-CASE-GSC-11077-1] c02 N73-13008

SQUIRE, R. P.
Uniform variable light source
[NASA-CASE-NPO-11429-1] c74 N77-21941

STAHLEY, S. D.
Quick attach and release fluid coupling assembly
Patent
[NASA-CASE-XKS-01985] c15 N71-10782

STAINBACK, J. D.
Exposure interlock for oscilloscope cameras
[NASA-CASE-LAR-10319-1] c14 N73-32322

STALEY, H. W.
Pulse amplitude and width detector Patent
[NASA-CASE-XNP-06519] c09 N71-12519

Pulse rise time and amplitude detector Patent
[NASA-CASE-XNP-08804] c09 N71-24717

STALEY, R. W.
Exposure system for animals Patent
[NASA-CASE-XAC-05333] c11 N71-22875

STALLCOP, J. R.
Measurement of plasma temperature and density
by using radiation absorption
[NASA-CASE-ARC-10598-1] c75 N74-30156

STALOFF, C.
Frequency shift keyed demodulator Patent
[NASA-CASE-IGS-02889] c07 N71-11282

STANPS, J. J. C.
Television noise reduction device
[NASA-CASE-MSC-12607-1] c32 N75-21485

STANGE, W. C.
Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

Actuator mechanism
[NASA-CASE-GSC-11883-2] c37 N78-31426

STANLEY, A. G.
Method for analyzing radiation sensitivity of
integrated circuits
[NASA-CASE-NPO-14350-1] c33 N78-27330

STAR, K. W.
Endless tape cartridge Patent
[NASA-CASE-IGS-00769] c14 N70-41647

Endless tape transport mechanism Patent
[NASA-CASE-IGS-01223] c07 N71-10609

Annular slit colloid thruster Patent
[NASA-CASE-GSC-10709-1] c28 N71-25213

Micro-pound extended range thrust stand Patent
[NASA-CASE-GSC-10710-1] c28 N71-27094

STAR, R. W.
Solid propellant liner Patent
[NASA-CASE-XNP-09744] c27 N71-16392

STARKEY, D. J.
Torsional disconnect unit
[NASA-CASE-NPO-10704] c15 N72-20445

STARBER, E. E.
Frequency measurement by coincidence detection
with standard frequency
[NASA-CASE-MSC-14649-1] c33 N76-16331

STCLAIR, A. K.
Crystalline polyimides
[NASA-CASE-LAR-12099-1] c27 N78-24360

STCLAIR, T. L.
Polyimide adhesives
[NASA-CASE-LAR-12181-1] c27 N78-17205

Mixed diamines for lower melting addition
polyimide preparation and utilization
[NASA-CASE-LAR-12054-1] c27 N78-17218

Crystalline polyimides
[NASA-CASE-LAR-12099-1] c27 N78-24360

Mixed diamines for lower melting addition
polyimide preparation and utilization
[NASA-CASE-LAR-12054-2] c27 N79-19160

STECOR, S.
Thermal barrier coating system
[NASA-CASE-LEW-12554-1] c34 N78-18355

STEELE, E. R.
Satellite aided vehicle avoidance system Patent
[NASA-CASE-ERC-10090] c21 N71-24948

Improved satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419] c21 N72-21631

Satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419-1] c03 N75-30132

STEELE, R. K.
Method and apparatus for nondestructive testing
of pressure vessels
[NASA-CASE-NPO-12142-1] c38 N76-28563

STERNHAGEN, G.
Expandable support means
[NASA-CASE-NPO-11059] c15 N72-17454

STEINKEN, J.
Relief valve
[NASA-CASE-XMS-05894-1] c15 N69-21924

STEIN, R. J.
Continuous detonation reaction engine Patent
[NASA-CASE-XNP-06926] c28 N71-22983

STEIN, R. E.
A system for concurrently delivering a stream of
powdered fuel and a stream of powdered
oxidizer to a combustion chamber for a
reaction motor
[NASA-CASE-MPS-23904-1] c20 N79-13077

STEIN, S.
Injector-valve device Patent
[NASA-CASE-XLE-00303] c15 N70-36535

Rocket engine injector Patent
[NASA-CASE-XLE-00111] c28 N70-38199

Rocket engine injector Patent
[NASA-CASE-XLE-03157] c28 N71-24736

STEINBERG, R.
Solid state power mapping instrument Patent
[NASA-CASE-XLE-00301] c14 N70-36808

Molecular beam velocity selector Patent
[NASA-CASE-XLE-01533] c11 N71-10777

Method of forming metal hydride films
[NASA-CASE-LEW-12083-1] c37 N78-13436

STEINMETZ, C. R.
Energy limiter for hydraulic actuators Patent
[NASA-CASE-ARC-10131-1] c15 N71-27754

STELLEN, J. J.
Recorder/processor apparatus
[NASA-CASE-GSC-11553-1] c35 N74-15831

STELL, R. E.
In situ transfer standard for ultrahigh vacuum
gauge calibration
[NASA-CASE-LAR-10862-1] c35 N74-15092

STELLA, A. J.
Electrical connector pin with wiping action
[NASA-CASE-XNP-04238] c09 N69-39734

STELTS, P. D.
Low heat leak connector for cryogenic system
[NASA-CASE-XLE-02367-1] c31 N79-21225

STELZBIE, C. T.
Reflectometer for receiver input impedance match
measurement Patent
[NASA-CASE-XNP-10843] c07 N71-11267

Multi-feed cone Cassegrain antenna Patent
[NASA-CASE-NPO-10539] c07 N71-11285

Hatched thermistors for microwave power meters
Patent
[NASA-CASE-NPO-10348] c10 N71-12554

Broadband microwave waveguide window Patent
[NASA-CASE-XNP-08880] c09 N71-24808

Rotary vane attenuator wherein rotor has
orthogonally disposed resistive and dielectric
cards
[NASA-CASE-NPO-11418-1] c14 N73-13420

STENGARD, E. O.
Toggle mechanism for pinching metal tubes
[NASA-CASE-GSC-12274-1] c37 N78-25428

STENGEL, R. F.
Wind velocity probing device and method Patent
[NASA-CASE-XLA-02081] c20 N71-16281

STENLUND, S. J.
Rotating mandrel for assembly of inflatable
devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687

Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164

INVENTOR INDEX

STRASS, H. K.

STEPHANS, J. B.
 Low cost solar energy collection system
 [NASA-CASE-NPO-13579-1] c44 N78-17460
STEPHENS, D. G.
 Flexible ring slosh damping baffle Patent
 [NASA-CASE-LAR-10317-1] c32 N71-16103
 Instrument for measuring the dynamic behavior of
 liquids Patent
 [NASA-CASE-XLA-05541] c12 N71-26387
 Active vibration isolator for flexible bodies
 Patent
 [NASA-CASE-LAR-10106-1] c15 N71-27169
 Active air cushion control system minimizing
 vertical cushion response
 [NASA-CASE-LAR-10531-1] c02 N73-13023
STEPHENS, D. L.
 Automatic closed circuit television arc guidance
 control Patent
 [NASA-CASE-NPS-13046] c07 N71-19433
STEPHENS, J. B.
 Microbalance including crystal oscillators for
 measuring contaminants in a gas system Patent
 [NASA-CASE-NPO-10144] c14 N71-17701
 Space simulator Patent
 [NASA-CASE-NPO-10141] c11 N71-24964
 Sampler of gas borne particles
 [NASA-CASE-NPO-13396-1] c35 N76-18401
 Wind sensor
 [NASA-CASE-NPO-13462-1] c35 N76-24524
 Cryostat system for temperatures on the order of
 2 deg K or less
 [NASA-CASE-NPO-13459-1] c31 N77-10229
 Solar energy collection system
 [NASA-CASE-NPO-13579-2] c44 N77-20565
 Low cost solar energy collection system
 [NASA-CASE-NPO-13579-3] c44 N77-20566
 Internal combustion engine with electrostatic
 discharging fuels
 [NASA-CASE-NPO-13798-1] c37 N77-25535
 Underground mineral extraction
 [NASA-CASE-NPO-14140-1] c31 N78-24387
 Solar pond
 [NASA-CASE-NPO-13581-2] c44 N78-31525
 Primary reflector for solar energy collection
 systems
 [NASA-CASE-NPO-13579-4] c44 N79-14529
 Low cost cryostat
 [NASA-CASE-NPO-14513-1] c31 N79-20283
STEPHENS, J. R.
 High toughness-high strength iron alloy
 [NASA-CASE-LEW-12542-1] c26 N77-24254
 High toughness-high strength iron alloy
 [NASA-CASE-LEW-12542-3] c26 N79-19145
STERN, W.
 Reversible current control apparatus Patent
 [NASA-CASE-XLA-09371] c10 N71-18724
STERRETT, J. R.
 Laser grating interferometer Patent
 [NASA-CASE-XLA-04295] c16 N71-24170
STETSON, A. R.
 Silicide coatings for refractory metals Patent
 [NASA-CASE-XLE-10910] c18 N71-29040
STUDL, E. H.
 Controlled caging and uncaging mechanism
 [NASA-CASE-GSC-11063-1] c37 N77-27400
STEVENS, M. B.
 Portable electrophoresis apparatus using minimum
 electrolyte
 [NASA-CASE-NPO-13274-1] c25 N79-10163
STEVENSON, L. E.
 Aircraft control system
 [NASA-CASE-ERC-10439] c02 N73-19004
STEWART, C. B.
 Family of frequency to amplitude converters
 [NASA-CASE-HSC-12395] c09 N72-25257
 Apparatus for statistical time-series analysis
 of electrical signals
 [NASA-CASE-HSC-12428-1] c10 N73-25240
STEWART, R. B.
 Apparatus and method for generating large mass
 flow of high temperature air at hypersonic
 speeds
 [NASA-CASE-LAR-10612-1] c12 N73-28144
STEWART, W. L.
 Multistage multiple-reentry turbine Patent
 [NASA-CASE-XLE-00170] c15 N70-36412
 Multistage multiple-reentry turbine Patent
 [NASA-CASE-XLE-00085] c28 N70-39895
STICKLE, J. W.
 Direct lift control system Patent
 [NASA-CASE-LAR-10249-1] c02 N71-26110
STIFFLER, J. J.
 Error correcting method and apparatus Patent
 [NASA-CASE-XNP-02748] c08 N71-22749
 Encoder/decoder system for a rapidly
 synchronizable binary code Patent
 [NASA-CASE-NPO-10342] c10 N71-33407
STIGBERG, J. D.
 Optical rotational sensor
 [NASA-CASE-KSC-10752-1] c15 N73-27407
 Signal conditioner test set
 [NASA-CASE-KSC-10750-1] c35 N75-12270
STINE, B. A.
 Electric arc apparatus Patent
 [NASA-CASE-XAC-01677] c09 N71-20816
STIRN, R. J.
 High voltage, high current Schottky barrier
 solar cell
 [NASA-CASE-NPO-13482-1] c44 N78-13526
STJOHN, R. H.
 Walking boot assembly
 [NASA-CASE-ABC-11101-1] c54 N78-17675
STOCKARD, R. R.
 Semiconductor p-n junction stress and strain
 sensor
 [NASA-CASE-XLA-04980] c09 N69-27422
 Method of making semiconductor p-n junction
 stress and strain sensor
 [NASA-CASE-XLA-04980-2] c14 N72-28438
STOCKER, P. J.
 Laser extensometer
 [NASA-CASE-NPS-19259-1] c36 N78-14380
STOKES, C. S.
 Barium release system
 [NASA-CASE-LAR-10670-1] c06 N73-30097
 Rocket having barium release system to create
 ion clouds in the upper atmosphere
 [NASA-CASE-LAR-10670-2] c15 N74-27360
STOLLER, F. W.
 Reversible motion drive system Patent
 [NASA-CASE-NPO-10173] c15 N71-24696
STONE, F. A.
 Synchronous servo loop control system Patent
 [NASA-CASE-XNP-03744] c10 N71-20448
STONE, L. P.
 Articulated multiple couch assembly Patent
 [NASA-CASE-MSC-11253] c05 N71-12343
STONE, R. W., JR.
 G conditioning suit Patent
 [NASA-CASE-XLA-02898] c05 N71-20268
STONE, S. E.
 Fluid sample collector Patent
 [NASA-CASE-XHS-06767-1] c14 N71-20435
STORY, A. W.
 System for indicating direction of intruder
 aircraft
 [NASA-CASE-ERC-10226-1] c14 N73-16483
 Display system
 [NASA-CASE-ERC-10350] c14 N73-20474
STOTLER, C. L., JR.
 Integrated gas turbine engine-nacelle
 [NASA-CASE-LEW-12389-2] c07 N78-18066
 Integrated gas turbine engine-nacelle
 [NASA-CASE-LEW-12389-3] c07 N79-14096
STRAIGHT, D. H.
 Rocket motor system Patent
 [NASA-CASE-XLE-00323] c28 N70-38505
 Gas turbine exhaust nozzle
 [NASA-CASE-LEW-11569-1] c07 N74-15453
STRAND, L. D.
 Solid propellant rocket motor
 [NASA-CASE-NPO-11559] c28 N73-24784
 Nitramine propellants
 [NASA-CASE-NPO-14103-1] c28 N78-31255
STRANGE, M. G.
 Position sensing device employing misaligned
 magnetic field generating and detecting
 apparatus Patent
 [NASA-CASE-XGS-07514] c23 N71-16099
 Self-regulating proportionally controlled
 heating apparatus and technique
 [NASA-CASE-GSC-11752-1] c77 N75-20140
STRASS, H. K.
 Motion picture camera for optical pyrometry Patent
 [NASA-CASE-XLA-00062] c14 N70-33254
 Light intensity modulator controller Patent
 [NASA-CASE-XHS-04300] c09 N71-19479

STREED, E. R.

INVENTOR INDEX

STREED, E. R.
Solar cell Patent
[NASA-CASE-ARC-10050] c03 N71-33409

STRINGHAM, R. S.
Process for producing flame resistant polyamides
and products produced thereby
[NASA-CASE-MSC-16074-1] c27 N77-14262

STROM, T. W.
Spiral groove seal
[NASA-CASE-XLE-10326-2] c15 N72-29488
Spiral groove seal
[NASA-CASE-XLE-10326-4] c37 N74-15125

STRONG, I. J.
Stirring apparatus for plural test tubes Patent
[NASA-CASE-XAC-06956] c15 N71-21177

STRONG, J. P., III
Two-dimensional radiant energy array computers
and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751
Analog to digital converter for two-dimensional
radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731
Memory device for two-dimensional radiant energy
array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

STROUB, R. H.
Constant lift rotor for a heavier than air craft
[NASA-CASE-ARC-11045-1] c05 N79-17847

STROUHAL, G.
Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423

STROUP, E. R.
Electrochemical coulometer and method of forming
same Patent
[NASA-CASE-XGS-05434] c03 N71-20491

STRULL, G.
Solid state television camera system Patent
[NASA-CASE-XMF-06092] c07 N71-24612

STRUTHOFF, G. L.
Dual acting slit control mechanism
[NASA-CASE-LAR-11370-1] c35 N78-32399

STRUZIK, E. A.
Ceramic fiber insulating material and methods of
producing same
[NASA-CASE-MSC-14795-1] c27 N76-15314
Ceramic fiber insulating material and method of
producing same
[NASA-CASE-MSC-14795-2] c24 N78-25138

STUART, J. L.
Automated fluid chemical analyzer Patent
[NASA-CASE-XMP-09451] c06 N71-26754

STUART, J. W.
Fire resistant coating composition Patent
[NASA-CASE-GSC-10072] c18 N71-14014
Diffuse reflective coating
[NASA-CASE-GSC-11214-1] c06 N73-13128

STUCKEY, J. M.
Panelized high performance multilayer insulation
Patent
[NASA-CASE-MFS-14023] c33 N71-25351
Cryogenic thermal insulation Patent
[NASA-CASE-XMP-05046] c33 N71-28892

STUDENICK, D. K.
System for stabilizing torque between a balloon
and gondola
[NASA-CASE-GSC-11077-1] c02 N73-13008
Fluid sampling device
[NASA-CASE-GSC-12143-1] c35 N77-32456

STUDER, P. A.
Electronic beam switching commutator Patent
[NASA-CASE-XGS-01451] c09 N71-10677
Direct current motor with stationary armature
and field Patent
[NASA-CASE-XGS-05290] c09 N71-25999
Helical recorder arrangement for multiple
channel recording on both sides of the tape
[NASA-CASE-GSC-10614-1] c09 N72-11224
Electric motive machine including magnetic bearing
[NASA-CASE-XGS-07805] c15 N72-33476
Magnetic bearing
[NASA-CASE-GSC-11079-1] c37 N75-18574
Magnetic bearing system
[NASA-CASE-GSC-11978-1] c37 N77-17464
Three phase full wave dc motor decoder
[NASA-CASE-GSC-11824-1] c33 N77-26386
Energy storage apparatus
[NASA-CASE-GSC-12030-1] c44 N78-24608

STUMP, C. W.
Apparatus for measuring an aircraft's speed and

height
[NASA-CASE-LAR-12275-1] c35 N79-18296

STUPE, E. C., JR.
Hydroxy terminated perfluoro ethers Patent
[NASA-CASE-NPO-10768] c06 N71-27254
Perfluoro polyether acyl fluorides
[NASA-CASE-NPO-10765] c06 N72-20121
Polyurethane resins from hydroxy terminated
perfluoro ethers
[NASA-CASE-NPO-10768-2] c06 N72-27144
Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-2] c06 N72-27151
Highly fluorinated polyurethanes
[NASA-CASE-NPO-10767-1] c06 N73-33076

STURGIS, A. C.
Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759

STURN, R. G.
Self-recording portable soil penetrometer
[NASA-CASE-MFS-20774] c14 N73-19420

STURMAN, J. C.
Pulsed differential comparator circuit Patent
[NASA-CASE-XLE-03804] c10 N71-19471

STYLES, C. M.
Spherical solid-propellant rocket motor Patent
[NASA-CASE-XLA-00105] c28 N70-33331

SUDEY, J.
Low speed phaselock speed control system
[NASA-CASE-GSC-11127-1] c09 N75-24758

SULLIVAN, D. B.
Electrical insulating layer process
[NASA-CASE-LEW-10489-1] c15 N72-25447

SULLIVAN, E. M.
Ablation article and method
[NASA-CASE-LAR-10439-1] c33 N73-27796

SULLIVAN, J. L.
Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900

SULLIVAN, T. E.
Waveguide mixer
[NASA-CASE-ERC-10179] c07 N72-20141

SUNIDA, J. T.
Miniature multichannel biotelemetry system
[NASA-CASE-NPO-13065-1] c52 N74-26625

SUNMERFIELD, D. G.
Wind tunnel model and method
[NASA-CASE-LAR-10812-1] c09 N74-17955

SUNNERS, R. H.
Geneva mechanism
[NASA-CASE-NPO-13281-1] c37 N75-13266

SUTLIFF, J. D.
Wing deployment method and apparatus Patent
[NASA-CASE-XMS-00907] c02 N70-41630

SWAIN, R. L.
Spherical solid-propellant rocket motor Patent
[NASA-CASE-XLA-00105] c28 N70-33331

SWANN, R. T.
Sandwich panel construction Patent
[NASA-CASE-XLA-00349] c33 N70-37979
Dielectric molding apparatus Patent
[NASA-CASE-LAR-10121-1] c15 N71-26721

SWARTZ, P. F.
Micro-fluid exchange coupling apparatus
[NASA-CASE-ARC-11114-1] c52 N78-33717

SWEAT, J. C.
Emergency escape system Patent
[NASA-CASE-XKS-07814] c15 N71-27067

SWEET, G. E.
Compensating radiometer
[NASA-CASE-XLA-04556] c14 N69-27488
Spherical measurement device
[NASA-CASE-XLA-06683] c14 N72-28436

SWETTE, L. L.
Electrocatalyst for oxygen reduction
[NASA-CASE-HQN-10537-1] c06 N72-10138

SWINGLE, R. L.
Compact solar still Patent
[NASA-CASE-XMS-04533] c15 N71-23086

SWIRSKY, B. D.
Method of fabricating an object with a thin wall
having a precisely shaped slit
[NASA-CASE-LAR-10409-1] c31 N74-21059

SWORDS, B. B.
Adjustable force probe
[NASA-CASE-MFS-20760] c14 N72-33377

SYDNOR, R. L.
Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323

INVENTOR INDEX

THOM, K.

SYVERTSON, C. A.
Flight craft Patent
[NASA-CASE-XAC-02058] c02 N71-16087

T

TADDEO, P. V.
Pulse generating circuit employing switch means
on ends of delay line for alternately charging
and discharging same Patent
[NASA-CASE-INP-00745] c10 N71-28960

TALBOT, H. W.
Protection for energy conversion systems
[NASA-CASE-XGS-04808] c03 N69-25146
Inverter with means for base current shaping for
sweeping charge carriers from base region Patent
[NASA-CASE-XGS-06226] c10 N71-25950

TALLEY, D. H.
Response analyzers for sensors Patent
[NASA-CASE-MFS-11204] c14 N71-29134

TANG, H. B.
Antiaircraft system and method employing small
projectiles
[NASA-CASE-FRC-11006-1] c99 N79-10995

TARPLEY, J. L.
Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489

TASHBAH, P. W.
System for depositing thin films
[NASA-CASE-MFS-20775-1] c31 N75-12161

TAUB, W. H.
Radial module space station Patent
[NASA-CASE-IMS-01906] c31 N70-41373
Space vehicle system
[NASA-CASE-MSC-12561-1] c18 N76-17185

TAUSWORTHE, B. C.
Filter for third order phase locked loops
[NASA-CASE-NPO-11941-1] c10 N73-27171
Phase conjugation method and apparatus for an
active retrodirective antenna array
[NASA-CASE-NPO-13641-1] c32 N77-24340

TAYLOR, C. J.
High resolution developing of photosensitive
resists Patent
[NASA-CASE-XGS-04993] c14 N71-17574

TAYLOR, L. L.
Flexible composite membrane Patent
[NASA-CASE-INP-08837] c18 N71-16210

TAYLOR, L. V.
Plural position switch status and operativeness
checker Patent
[NASA-CASE-XLA-08799] c10 N71-27272

TAYLOR, B. A.
Digital computing cardiachometer
[NASA-CASE-MFS-20284-1] c52 N74-12778

TAYLOR, B. C.
Multi axes vibration fixtures
[NASA-CASE-MFS-20242] c14 N73-19421

TAYLOR, B. E.
Automatic acquisition system for phase-lock loop
[NASA-CASE-XGS-04994] c09 N69-21543

Polarization diversity monopulse tracking
receiver Patent
[NASA-CASE-XGS-03501] c09 N71-20864

Electromagnetic polarization systems and methods
Patent
[NASA-CASE-GSC-10021-1] c09 N71-24595

Method and apparatus for continuous measurement
of bacterial content of aqueous samples
[NASA-CASE-MSC-16779-1] c51 N78-22586

Method and automated apparatus for detecting
coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588

Water quality monitoring system
[NASA-CASE-MSC-16778-1] c51 N78-22589

TAYLOR, T. I.
Metabolic rate meter and method
[NASA-CASE-MSC-12239-1] c52 N79-21750

TCHERNY, D. I.
Variable frequency nuclear magnetic resonance
spectrometer Patent
[NASA-CASE-INP-09830] c14 N71-26266

TEPOEL, H. E.
Television signal scan rate conversion system
Patent
[NASA-CASE-IMS-07168] c07 N71-11300

TENNELIA, C. B.
Digital second-order phase-locked loop
[NASA-CASE-NPO-11905-1] c33 N74-12887

TEITELBAUM, S.
Frequency shift keyed demodulator Patent
[NASA-CASE-XGS-02889] c07 N71-11282

TEPPER, T. A.
Method of determining bond quality of power
transistors attached to substrates
[NASA-CASE-MFS-21931-1] c37 N75-26372

TEPPLE, H. B.
A method and means for growing ribbon crystals
without subjecting the crystals to thermal
shock-induced strains
[NASA-CASE-NPO-14298-1] c76 N79-10917
An improved apparatus for use in the production
of ribbon-shaped crystals from a silicon melt
[NASA-CASE-NPO-14297-1] c76 N79-10918

TEPPER, W. H.
Cryogenic liquid sensor
[NASA-CASE-NPO-10619-1] c35 N77-21393

TENG, R. H.
Collapsible pistons
[NASA-CASE-MSC-13789-1] c11 N73-32152

TENOSO, H. J.
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N79-10693

TEPPER, R. H.
Regenerable device for scrubbing breathable air
of CO2 and moisture without special heat
exchanger equipment
[NASA-CASE-MSC-14771-1] c54 N77-32722

TERR, L. S.
Gas compression apparatus
[NASA-CASE-MSC-14757-1] c35 N78-10428

TERRAY, A.
Method of making an apertured casting
[NASA-CASE-LEW-11169-1] c37 N76-23570

TERSELIC, R. A.
Split welding chamber Patent
[NASA-CASE-LEW-11531] c15 N71-14932

TESINSKY, J. S.
Flexible pile thermal barrier insulator
[NASA-CASE-MSC-19568-1] c34 N78-25350

TETSUKA, G. H.
Single or joint amplitude distribution analyzer
Patent
[NASA-CASE-INP-01383] c09 N71-10659

THALER, S.
Voltage regulator Patent
[NASA-CASE-ERC-10113] c09 N71-27053

Current dependent filter inductance
[NASA-CASE-ERC-10139] c09 N72-17154

THALLER, L. H.
Combined electrolysis device and fuel cell and
method of operation Patent
[NASA-CASE-XLA-01645] c03 N71-20904

Electrically rechargeable REDOX flow
cell
[NASA-CASE-LEW-12220-1] c44 N77-14581

Electrochemical cell for rebalancing redox flow
system
[NASA-CASE-LEW-13150-1] c44 N78-25554

THEAKSTON, H.
A floating nut retention system
[NASA-CASE-MSC-16938-1] c37 N78-32431

THIBODAU, J. G., JR.
Spherical solid-propellant rocket motor Patent
[NASA-CASE-XLA-00105] c28 N70-33331

Handrel for shaping solid propellant rocket fuel
into a motor casing Patent
[NASA-CASE-XLA-00304] c27 N70-34783

Method of making a solid propellant rocket motor
Patent
[NASA-CASE-XLA-04126] c28 N71-26779

Solid propellant rocket motor and method of
making same
[NASA-CASE-XLA-1349] c20 N77-17143

THIEL, A. H.
Aligning and positioning device Patent
[NASA-CASE-IMS-04178] c15 N71-22798

THIEL, C.
Space simulator Patent
[NASA-CASE-INP-00459] c11 N70-38675

THIEL, C. L.
Thermal energy transformer
[NASA-CASE-NPO-14058-1] c44 N79-18443

THOLE, J. H.
Inflation system for balloon type satellites
Patent
[NASA-CASE-XGS-03351] c31 N71-16081

THOM, K.
Magnetically controlled plasma accelerator Patent

[NASA-CASE-XLA-00327]	c25	N71-29184	[NASA-CASE-LEW-10199-1]	c27	N74-23125
Non-equilibrium radiation nuclear reactor			THYS, P. C.		
[NASA-CASE-HQN-10841-1]	c73	N78-19920	Droplet monitoring probe		
THOMAS, D. P., JR.			[NASA-CASE-NFO-10985]	c14	N73-20478
Jet shoes			TIBBITTS, W. C.		
[NASA-CASE-XLA-08491]	c05	N69-21380	Apparatus and method for protecting a		
One hand backpack harness			photographic device Patent		
[NASA-CASE-LAR-10102-1]	c05	N72-23085	[NASA-CASE-NPO-10174]	c14	N71-18465
Kinesthetic control simulator			TICKNER, E. G.		
[NASA-CASE-LAR-10276-1]	c09	N75-15662	Liquid cooled brassiere and method of diagnosing		
Fluid velocity measuring device			malignant tumors therewith		
[NASA-CASE-LAR-11729-1]	c34	N79-12359	[NASA-CASE-ARC-11007-1]	c52	N77-14736
THOMAS, H. W.			TIERPENNAN, H. W.		
Electronic motor control system Patent			Optical torque meter Patent		
[NASA-CASE-IMP-01129]	c09	N70-38712	[NASA-CASE-XLE-00503]	c14	N70-34816
THOMAS, H. E.			TILLER, H. G.		
Optical communications system Patent			Device for measuring bearing preload		
[NASA-CASE-XLA-01090]	c07	N71-12389	[NASA-CASE-NFS-20434]	c11	N72-25288
Optical communications system Patent			TING, J. D.		
[NASA-CASE-XLA-01090]	c16	N71-28963	Counter Patent		
THOMAS, H. L.			[NASA-CASE-IMP-06234]	c10	N71-27137
Optical alignment device			TINOR, U.		
[NASA-CASE-ARC-10932-1]	c74	N76-22993	Multichannel telemetry system		
THOMAS, B. D.			[NASA-CASE-NFO-11572]	c07	N73-16121
Thermocouple tape			Receiver with an improved phase lock loop in a		
[NASA-CASE-LEW-11072-1]	c14	N73-24472	multichannel telemetry system with suppressed		
Thermocouple tape			carrier		
[NASA-CASE-LEW-11072-2]	c35	N76-15434	[NASA-CASE-NPO-11593-1]	c07	N73-28012
Multi-cell battery protection system			TINLING, B. E.		
[NASA-CASE-LEW-12039-1]	c44	N78-14625	Stabilization of gravity oriented satellites		
THOMAS, R. E.			Patent		
Method and apparatus for eliminating luminol			[NASA-CASE-XAC-01591]	c31	N71-17729
interference material			TISCHLER, R. P.		
[NASA-CASE-HSC-16260-1]	c51	N78-18674	Probes having ring and primary sensor at same		
Rapid, quantitative determination of bacteria in			potential to prevent collection of stray wall		
water			currents in ionized gases		
[NASA-CASE-GSC-12158-1]	c51	N78-22585	[NASA-CASE-XLE-00690]	c25	N69-39884
Method and apparatus for continuous measurement			TISDALE, H. P., SR.		
of bacterial content of aqueous samples			A velocity vector control system augmented with		
[NASA-CASE-HSC-16779-1]	c51	N78-22586	direct lift control		
THOMASON, H. E.			[NASA-CASE-LAR-12268-1]	c08	N79-20136
Trigonometric vehicle guidance assembly which			TITLE, A. H.		
aligns the three perpendicular axes of two			Partial polarizer filter		
three-axes systems Patent			[NASA-CASE-GSC-12225-1]	c74	N79-14891
[NASA-CASE-IMP-00684]	c21	N71-21688	TITUS, L. E.		
Azimuth laying system Patent			Wide power range microwave feedback controller		
[NASA-CASE-IMP-01669]	c21	N71-23289	[NASA-CASE-GSC-12146-1]	c33	N78-32340
THOMPSON, G. D., JR.			TOBIAS, R. A.		
Cascaded complementary pair broadband transistor			Thermostatic actuator		
amplifiers Patent			[NASA-CASE-NPO-10637]	c15	N72-12409
[NASA-CASE-NPO-10003]	c10	N71-26415	Thermal motor		
THOMPSON, J. R., JR.			[NASA-CASE-NPO-11283]	c09	N72-25260
Inflatable transpiration cooled nozzle			TOCK, R. W.		
[NASA-CASE-NFS-20619]	c28	N72-11708	Mixture separation cell Patent		
THOMPSON, R. B.			[NASA-CASE-IMS-02952]	c18	N71-20742
Length mode piezoelectric ultrasonic transducer			TODD, H. H.		
for inspection of solid objects			Method of producing refractory bodies having		
[NASA-CASE-HSC-19672-1]	c38	N79-14398	controlled porosity Patent		
THOMPSON, R. E.			[NASA-CASE-LEW-10393-1]	c17	N71-15468
On-film optical recording of camera lens settings			Shock tube powder dispersing apparatus Patent		
[NASA-CASE-HSC-12363-1]	c14	N73-26431	[NASA-CASE-XLE-04946]	c17	N71-24911
THOMPSON, S. W.			TOFT, A. E.		
A method of prepurifying metallurgical grade			Star tracking reticles and process for the		
silicon employing reduced pressure atmospheric			production thereof		
control			[NASA-CASE-GSC-11188-2]	c21	N73-19630
[NASA-CASE-NFO-14474-1]	c26	N78-27255	Star tracking reticles		
THOMPSON, W. W.			[NASA-CASE-GSC-11188-1]	c14	N73-32320
Inhibited solid propellant composition			Formation of star tracking reticles		
containing beryllium hydride			[NASA-CASE-GSC-11188-3]	c74	N74-20008
[NASA-CASE-NPO-10866-1]	c28	N79-14228	TOLL, T. A.		
THOMSON, A. E.			Variable sweep wing aircraft Patent		
Pulsed energy power system Patent			[NASA-CASE-XLA-00221]	c02	N70-33266
[NASA-CASE-HSC-13112]	c03	N71-11057	TOLSON, B. A.		
THOMSON, J. A. L.			Cable stabilizer for open shaft cable operated		
Wind measurement system			elevators		
[NASA-CASE-NFS-23362-1]	c47	N77-10753	[NASA-CASE-KSC-10513]	c15	N72-25453
THORNTON, G. E.			TOM, B. Y.		
Hole cutter			Ionene membrane separator		
[NASA-CASE-NFS-22649-1]	c37	N75-25186	[NASA-CASE-NFO-11091]	c18	N72-22567
THORNHALL, J. C.			TOHLINSON, B. E.		
Regulated dc to dc converter			Fuselage structure using advanced technology		
[NASA-CASE-XGS-03429]	c03	N69-21330	metal matrix fiber reinforced composites		
Pulse-type magnetic core memory element circuit			[NASA-CASE-LAR-11688-1]	c05	N78-18045
with blocking oscillator feedback Patent			TOHLINSON, L. E.		
[NASA-CASE-XGS-03303]	c08	N71-18595	Temperature sensitive flow regulator Patent		
Stepping motor control circuit Patent			[NASA-CASE-NFS-14259]	c15	N71-19213
[NASA-CASE-GSC-10366-1]	c10	N71-18772	TONGIER, H., JR.		
THORPE, R. S.			Absolute focus lock for microscopes		
Reinforced structural plastics			[NASA-CASE-LAR-10184]	c14	N72-22445

INVENTOR INDEX

TURNER, R. C.

- TOOLE, P. C.
High speed direct binary-to-binary coded decimal converter
[NASA-CASE-KSC-10326] c08 N72-21197
High speed direct binary to binary coded decimal converter and scaler
[NASA-CASE-KSC-10595] c08 N73-12176
Compact-bi-phase pulse coded modulation decoder
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- TOOTS, J.
Microwave integrated circuit for Josephson voltage standards
[NASA-CASE-NFS-23845-1] c33 N78-32347
- TOPITS, A., JR.
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Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917
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Ultrahigh vacuum gauge having two collector electrodes
[NASA-CASE-LAR-02743] c14 N73-32324
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Belleville spring assembly with elastic guides
[NASA-CASE-XNP-09452] c15 N69-27504
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Laser machining apparatus Patent
[NASA-CASE-HQN-10541-2] c15 N71-27135
Optical frequency waveguide and transmission system Patent
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Optical frequency waveguide and transmission system
[NASA-CASE-HQN-10541-3] c23 N72-23695
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[NASA-CASE-XGS-01812] c07 N71-23001
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[NASA-CASE-NPO-10863] c06 N70-11251
Method of polymerizing perfluorobutadiene Patent application
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Reaction of fluorine with polyperfluoropolyenes.
[NASA-CASE-NPO-10862] c06 N72-22107
Polymers of perfluorobutadiene and method of manufacture
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Utilization of oxygen difluoride for syntheses of fluoropolymers
[NASA-CASE-NPO-12061-1] c27 N76-16228
Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-HSC-16074-1] c27 N77-14262
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[NASA-CASE-HSC-12121-1] c15 N71-27147
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Satellite appendage tie down cord Patent
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[NASA-CASE-XNP-07659] c06 N71-22975
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Method of manufacturing semiconductor devices using refractory dielectrics
[NASA-CASE-XER-08476-1] c26 N72-17820
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Location identification system
[NASA-CASE-ERC-10324] c07 N72-25173
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Combustion detector
[NASA-CASE-LAR-10739-1] c14 N73-16484
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[NASA-CASE-GSC-11620-1] c34 N74-23039
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Booster tank system Patent
[NASA-CASE-HSC-12390] c27 N71-29155
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[NASA-CASE-NFS-10506] c06 N73-30100
Fluorohydroxy ethers
[NASA-CASE-NFS-10507] c06 N73-30101
Highly fluorinated polymers
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Fluorine containing polyurethane
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Fluorine-containing polyformals
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[NASA-CASE-XNP-08832] c08 N71-12506
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Independent gain and bandwidth control of a traveling wave maser
[NASA-CASE-NPO-13801-1] c36 N78-18410
Swept group delay measurement
[NASA-CASE-NPO-13909-1] c33 N78-25319
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Collapsible structure for an antenna reflector
[NASA-CASE-NPO-11751] c07 N73-24176
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[NASA-CASE-HSC-14143-1] c77 N75-20139
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[NASA-CASE-ERC-10001] c23 N71-24868
Electromechanical control actuator system Patent
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Optical system support apparatus
[NASA-CASE-XER-07896-2] c23 N72-22673
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[NASA-CASE-GSC-11909] c32 N74-20863
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Hydraulic drive mechanism Patent
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Space suit heat exchanger Patent
[NASA-CASE-XMS-09571] c05 N71-19439
Extravehicular tunnel suit system Patent
[NASA-CASE-HSC-12243-1] c05 N71-24728
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[NASA-CASE-NFS-23579-1] c18 N79-11108
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Minimech self-deploying boom mechanism
[NASA-CASE-GSC-10566-1] c15 N72-18477
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Liquid waste feed system
[NASA-CASE-LAR-10365-1] c05 N72-27102
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[NASA-CASE-XNP-04339] c17 N71-29137
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[NASA-CASE-IXF-05224] c14 N71-23726
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hydrogen chloride transport of the elements
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links
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J

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[NASA-CASE-IGS-08259] c14 N71-23698

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[NASA-CASE-MFS-16609] c14 N72-21431
Aircraft-mounted crash-activated transmitter
device
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[NASA-CASE-MFS-21606-1] c37 N75-19685

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aligned identical random arrays of apertures
[NASA-CASE-MFS-20546-2] c14 N73-30389
Multiplate focusing collimator
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Apparatus for measuring a sorbate dispersed in a
fluid stream
[NASA-CASE-ARC-10896-1] c35 N78-19465

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Camera arrangement
[NASA-CASE-GSC-12032-2] c35 N76-19408

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[NASA-CASE-MFS-23659-1] c33 N79-17133

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Patent
[NASA-CASE-MFS-11497] c28 N71-16224

V

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Deployable solar cell array
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Anthropomorphic master/slave manipulator system
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Reinforced polyquinoxaline gasket and method of
preparing the same
[NASA-CASE-MFS-21364-1] c37 N74-18126

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monodisperse latexes
[NASA-CASE-MFS-25000-1] c25 N79-14171

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recessed anode
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Patent
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[NASA-CASE-NPO-14223-1] c25 N79-10168

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controlled oscillator Patent
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[NASA-CASE-LAR-11726-1] c37 N76-27568
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 [NASA-CASE-XGS-05680] c14 N71-17585

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 [NASA-CASE-XGS-04224] c10 N71-26418

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 [NASA-CASE-GSC-12046-1] c52 N79-14750

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 [NASA-CASE-ARC-11118-1] c52 N78-11692

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 [NASA-CASE-ARC-11118-2] c52 N79-14755

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 [NASA-CASE-HQN-10654-1] c16 N73-13489

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 [NASA-CASE-HQN-10790-1] c36 N74-11313

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 [NASA-CASE-MSC-16170-1] c32 N77-12248

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 [NASA-CASE-XLE-00808] c24 N71-10560

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 [NASA-CASE-XGS-04393] c21 N71-14159

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 [NASA-CASE-IAC-00405] c05 N70-41819

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 [NASA-CASE-ARC-10153] c05 N71-28619

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Anthropomorphic master/slave manipulator system
 [NASA-CASE-ARC-10756-1] c54 N77-32721

Walking boot assembly
 [NASA-CASE-ARC-11101-1] c54 N78-17675

Spacesuit mobility joints
 [NASA-CASE-ARC-11058-2] c54 N78-18763

Spacesuit mobility joints
 [NASA-CASE-ARC-11058-1] c54 N78-31735

Spacesuit torso closure
 [NASA-CASE-ARC-11100-1] c54 N78-31736

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[NASA-CASE-LAR-10208-1] c35 N76-18400
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[NASA-CASE-HFS-20767-1] c38 N74-15130
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[NASA-CASE-NPO-13707-1] c74 N77-28933
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[NASA-CASE-XMP-01730] c15 N71-23050
Welding skate with computerized control Patent
[NASA-CASE-XMP-07069] c15 N71-23815
Internal flare angle gauge Patent
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Method of crystallization
[NASA-CASE-MPS-23001-1] c76 N77-32919
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Telespectrograph Patent
[NASA-CASE-XLA-03273] c14 N71-18699
- WALTON, T. S.
Electronic checkout system for space vehicles Patent
[NASA-CASE-XKS-08012-2] c31 N71-15566
- WANG, D. S.
A method of making high temperature seals
[NASA-CASE-MSC-16973-1] c37 N79-17224
- WANG, G. Y.
A synchronous binary array divider
[NASA-CASE-ERC-10180-1] c60 N74-20836
- WANG, T. G.
Material suspension within an acoustically excited resonant chamber
[NASA-CASE-NPO-13263-1] c12 N75-24774
Heat operated cryogenic electrical generator
[NASA-CASE-NPO-13303-1] c20 N75-24837
Acoustic energy shaping
[NASA-CASE-NPO-13802-1] c71 N78-10837
Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827
- WARD, D. R.
Automatically deploying nozzle exit cone extension Patent
[NASA-CASE-XLE-01640] c31 N71-15637
- WARD, J. C., JR.
Capacitor power pak Patent Application
[NASA-CASE-LAR-10367-1] c03 N70-26817
- WARD, J. P.
Variable geometry rotor system
[NASA-CASE-LAR-10557] c02 N72-11018
- WARD, W. D.
Vapor liquid separator Patent
[NASA-CASE-XMP-04042] c15 N71-23023
- WARKENTINE, D. K.
Automatic battery charger Patent
[NASA-CASE-XMP-04758] c03 N71-24605
- WARNECK, P.
Analytical photoionization mass spectrometer with an argon gas filter between the light source and monochromator Patent
[NASA-CASE-LAR-10180-1] c06 N71-13461
- WARREN, A. D.
A method of making high temperature seals
[NASA-CASE-MSC-16973-1] c37 N79-17224
- WARREN, A. P.
Assembly for recovering a capsule Patent
[NASA-CASE-XMP-00641] c31 N70-36410
Space capsule ejection assembly Patent
[NASA-CASE-XMP-03169] c31 N71-15675
Method and apparatus for securing to a spacecraft Patent
[NASA-CASE-MPS-11133] c31 N71-16222
- WATERS, W. J.
Nickel-base alloy Patent
[NASA-CASE-XLE-00283] c17 N70-36616
Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent
[NASA-CASE-XLE-02082] c17 N71-16026
Nickel base alloy
[NASA-CASE-LEW-10874-1] c17 N72-22535
Method of forming superalloys
[NASA-CASE-LEW-10805-1] c15 N73-13465
Method of heat treating a formed powder product material
[NASA-CASE-LEW-10805-3] c26 N74-10521

INVENTOR INDEX

WELLS, W. H.

Method of forming articles of manufacture from superalloy powders
[NASA-CASE-LEW-10805-2] c37 N74-13179

Nickel base alloy
[NASA-CASE-LEW-12270-1] c26 N77-32280

WATSON, J. D.
Tumbler system to provide random motion
[NASA-CASE-XGS-02437] c15 N69-21472

WATSON, J. R.
High temperature spark plug Patent
[NASA-CASE-XLE-00660] c28 N70-39925

WATSON, W. D.
Payload/burned-out motor case separation system Patent
[NASA-CASE-XLA-05369] c31 N71-15687

WATSON, V. R.
Electric arc apparatus Patent
[NASA-CASE-XAC-01677] c09 N71-20816

WAYLAND, H. J.
Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123

WEAR, J. D.
Rocket engine Patent
[NASA-CASE-XLE-00342] c28 N70-37980

WEATHERS, G. D.
Pseudo-noise test set for communication system evaluation
[NASA-CASE-MFS-22671-1] c35 N75-21582

Method of and means for testing a tape record/playback system
[NASA-CASE-MFS-22671-2] c35 N77-17426

WEAVER, L. B.
Multiple in-line docking capability for rotating space stations
[NASA-CASE-MFS-20855-1] c15 N77-10112

WEAVER, O.
Charge injection method and apparatus of producing large area electrets
[NASA-CASE-MFS-23186-1] c33 N76-23483

Charge injection method and apparatus of producing large area electrets
[NASA-CASE-MFS-23186-2] c24 N78-25137

WEBB, D. D.
Sprayable low density ablator and application process
[NASA-CASE-MFS-23506-1] c24 N78-24290

WEBB, D. L.
Video sync processor Patent
[NASA-CASE-RSC-10002] c10 N71-25865

Electronic video editor
[NASA-CASE-RSC-10003] c10 N73-13235

WEBB, J. A., JR.
Circuit for detecting initial systole and diastolic notch
[NASA-CASE-LEW-11581-1] c54 N75-13531

WEBB, J. B.
Delayed simultaneous release mechanism
[NASA-CASE-GSC-10814-1] c03 N73-20039

WEBBOW, B. W.
Tubular sublimatory evaporator heat sink
[NASA-CASE-ARC-10912-1] c34 N77-19353

Spacesuit torso closure
[NASA-CASE-ARC-11100-1] c54 N78-31736

Cooling system for removing metabolic heat from an hermetically sealed spacesuit
[NASA-CASE-ARC-11059-1] c54 N78-32721

WEBER, G. R.
Method of making reinforced composite structure
[NASA-CASE-LEW-12619-1] c24 N77-19171

WEBER, G. J.
Multiple circuit protector device
[NASA-CASE-XMS-02744] c33 N75-27249

WEBER, L.
Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions
[NASA-CASE-NPO-12122-1] c24 N76-14203

WEBER, R. J.
Venting vapor apparatus Patent
[NASA-CASE-XLE-00288] c15 N70-34247

Supersonic-combustion rocket
[NASA-CASE-LEW-11058-1] c20 N74-13502

WEBSTER, J. A.
Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides
[NASA-CASE-MFS-22356-1] c23 N75-30256

Polyimides of ether-linked aryl tetracarboxylic dianhydrides
[NASA-CASE-MFS-22355-1] c23 N76-15268

WEETON, J. W.
Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288

Method of making fiber reinforced metallic composites Patent
[NASA-CASE-XLE-00231] c17 N70-38198

Reinforced metallic composites Patent
[NASA-CASE-XLE-00228] c17 N70-38490

Method for producing fiber reinforced metallic composites Patent
[NASA-CASE-XLE-03925] c18 N71-22894

Process for producing dispersion strengthened nickel with aluminum Patent
[NASA-CASE-XLE-06969] c17 N71-24142

Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent
[NASA-CASE-XLE-03940] c18 N71-26153

Method of making fiber composites
[NASA-CASE-LEW-10424-2-2] c18 N72-25539

Refractory metal base alloy composites
[NASA-CASE-XLE-03940-2] c17 N72-28536

Method for alleviating thermal stress damage in laminates
[NASA-CASE-LEW-12493-1] c24 N78-22163

WEIDENHAESE, J. H.
Isolation coupling arrangement for a torque measuring system
[NASA-CASE-XLA-04897] c15 N72-22482

WEIDMAN, D. J.
High intensity heat and light unit Patent
[NASA-CASE-XLA-00141] c09 N70-33312

WEIDNER, J. P.
Small air breathing launch vehicle
[NASA-CASE-XAR-12250-1] c15 N78-25120

WEINGART, J. H.
Stacked solar cell arrays
[NASA-CASE-NPO-11771] c03 N73-20040

WEINSTEIN, L.
Application of luciferase assay for ATP to antimicrobial drug susceptibility
[NASA-CASE-GSC-12039-1] c51 N77-22794

Determination of antimicrobial susceptibilities on infected urines without isolation
[NASA-CASE-GSC-12046-1] c52 N79-14750

WEINSTEIN, H.
Bonding thermoelectric elements to nonmagnetic refractory metal electrodes
[NASA-CASE-XGS-04554] c15 N69-39786

Segmenting lead telluride-silicon germanium thermoelements Patent
[NASA-CASE-XGS-05718] c26 N71-16037

WEISS, P. F.
Acquisition and tracking system for optical radar
[NASA-CASE-MFS-20125] c16 N72-13437

WEISS, S.
Pretreatment method for anti-wettable materials
[NASA-CASE-XMS-03537] c15 N69-21471

WEITZEL, D. F.
Propellant tank pressurization system Patent
[NASA-CASE-INP-00650] c27 N71-28929

WEITZEL, D. H.
Resilience testing device Patent
[NASA-CASE-XLA-08254] c14 N71-26161

WELCH, W. A.
Gas filter mounting structure
[NASA-CASE-MSC-12297] c14 N72-23457

WELLING, C. E.
Externally activated foaming compositions Patent
[NASA-CASE-XAR-10373-1] c18 N71-26155

WELLMAN, J. B.
Gas flow control device
[NASA-CASE-NPO-11479] c15 N73-13462

WELLS, A. F.
Water system virus detection
[NASA-CASE-MSC-16098-1] c51 N79-10693

WELLS, B. R.
Apparatus for ejection of an instrument cover
[NASA-CASE-XMF-04132] c15 N69-27502

WELLS, P. E.
Positive displacement flowmeter Patent
[NASA-CASE-INP-02822] c14 N70-41994

Remote control manipulator for zero gravity environment
[NASA-CASE-MFS-14405] c15 N72-28495

WELLS, W. H.
Rotable accurate reflector system for telescopes Patent

[NASA-CASE-NPO-10468]	c23 N71-33229	WHISENANT, J. T.	Inspection gage for boss Patent	
WELLS, W. L.		[NASA-CASE-IMP-04966]		c14 N71-17658
Electric-arc heater Patent		WHITACRE, H. E.	Quick release hook tape Patent	
[NASA-CASE-XLA-00330]	c33 N70-34540	[NASA-CASE-XNS-10660-1]		c15 N71-25975
WEHDT, A. J.		[NASA-CASE-HSC-12372-1]	Scientific experiment flexible mount	c31 N72-25842
Rotating mandrel for assembly of inflatable devices Patent		WHITCOMB, R. T.	Airfoil shape for flight at subsonic speeds	c02 N76-22154
[NASA-CASE-XLA-04143]	c15 N71-17687	[NASA-CASE-LAB-10585-1]		
WENZEL, G. E.		WHITE, A. E.	Scientific experiment flexible mount	
Amplifier drift tester		[NASA-CASE-HSC-12372-1]		c31 N72-25842
[NASA-CASE-XNS-05562-1]	c09 N69-39986	WHITE, E. C.	Method of making pressurized panel Patent	
WEHNER, E. A.		[NASA-CASE-XLA-08916]		c15 N71-29018
Method and apparatus for making curved reflectors Patent		Pressurized panel		
[NASA-CASE-XLE-08917]	c15 N71-15597	[NASA-CASE-XLA-08916-2]		c14 N73-28487
Apparatus for making curved reflectors Patent		Lightweight, variable solidity knitted parachute fabric		c02 N74-10034
[NASA-CASE-XLE-08917-2]	c15 N71-24836	[NASA-CASE-LAR-10776-1]		
WESSLESKI, C. J.		WHITE, F. A.	Coincidence apparatus for detecting particles	c14 N72-17328
Energy absorbing structure Patent Application		[NASA-CASE-XLA-07813]		
[NASA-CASE-HSC-12279-1]	c15 N70-35679	WHITE, J. A.	Magnetically centered liquid column float Patent	c14 N70-34820
Low onset rate energy absorber		[NASA-CASE-XAC-00030]		
[NASA-CASE-HSC-12279]	c15 N72-17450	WHITE, R. E.	Time delay and integration detectors using charge transfer devices	c33 N79-13262
WEST, R. L.		[NASA-CASE-GSC-12324-1]		
Device for handling printed circuit cards Patent		WHITE, W. F.	Dual resonant cavity absorption cell Patent	c14 N71-26137
[NASA-CASE-HPS-20453]	c15 N71-29133	[NASA-CASE-LAR-10305]		
WEST, R. W., JR.		Resonant waveguide stark cell		c33 N75-26245
Method and apparatus for making a heat insulating and allative structure Patent		[NASA-CASE-LAR-11352-1]		
[NASA-CASE-XNS-02009]	c33 N71-20834	WHITEHEAD, A. E.	Method and means for helium/hydrogen ratio measurement by alpha scattering	c35 N79-12416
WESTBROOK, R. E.		[NASA-CASE-NPO-14079-1]		
Electrode construction Patent		WHITEHEAD, C. W.	Apparatus for inserting and removing specimens from high temperature vacuum furnaces	c31 N74-27900
[NASA-CASE-ARC-10043-1]	c05 N71-11193	[NASA-CASE-LAR-10841-1]		
WESTER, G. W.		WHITEFIELD, C. E.	Selective plating of etched circuits without removing previous plating Patent	c15 N71-24047
The dc-to-dc converters employing staggered-phase power switches with two-loop control		[NASA-CASE-XGS-03120]		
[NASA-CASE-NPO-13512-1]	c33 N77-10428	WHITMORE, F. C.	Continuous magnetic flux pump	c15 N73-28516
Phase substitution of spare converter for a failed one of parallel phase staggered converters		[NASA-CASE-XNP-01187]		c15 N73-28516
[NASA-CASE-NPO-13812-1]	c33 N77-30365	Superconductive magnetic-field-trapping device		c26 N73-28710
WESTON, R. C.		[NASA-CASE-XNP-01185]		
Heat shield Patent		Magnetic-flux pump		c15 N73-32361
[NASA-CASE-XNS-00486]	c33 N70-33344	[NASA-CASE-XNP-01188]		
WESTPHAL, J. A.		WHITT, W. D.	General purpose rocket furnace	c09 N77-12070
Method and apparatus for aligning a laser beam projector Patent		[NASA-CASE-HPS-23460-1]		
[NASA-CASE-NPO-11087]	c23 N71-29125	WHITTEN, D. E.	Dual stage check valve	c15 N73-30459
WETHORE, J. W.		[NASA-CASE-HSC-13587-1]		
Aircraft instrument Patent		WHITTENBERGER, J. D.	Zirconium modified nickel-copper alloy	c26 N77-20201
[NASA-CASE-XLA-00487]	c14 N70-40157	[NASA-CASE-LEW-12245-1]		
WETZLER, D. G.		WIBERG, R. E.	Combustion products generating and metering device	c14 N72-10375
Thrust-isolating mounting		[NASA-CASE-GSC-11095-1]		
[NASA-CASE-HPS-21680-1]	c18 N74-27397	WIEBE, E. E.	Automatic thermal switch Patent	c23 N71-15467
WEYLER, G. E., JR.		[NASA-CASE-XNP-03796]		
Method of manufacture of bonded fiber flywheel		Helium refrigerator and method for decontaminating the refrigerator		c23 N72-25619
[NASA-CASE-HPS-23674-1]	c24 N78-27182	[NASA-CASE-NPO-10634]		
Rotatable mass for a flywheel		Refrigerated coaxial coupling		c33 N75-30430
[NASA-CASE-HPS-23051-1]	c37 N79-10422	[NASA-CASE-NPO-13504-1]		
WEZNER, F. S.		Helium refrigerator		c31 N76-14284
Collapsible reflector Patent		[NASA-CASE-NPO-13435-1]		
[NASA-CASE-XNS-03454]	c09 N71-20658	Multistation refrigeration system		c31 N78-25256
WHEATLEY, D. G.		[NASA-CASE-NPO-13839-1]		
Hermetic sealed vibration damper Patent		WIECH, B. E.	Zeta potential flowmeter Patent	c14 N71-23226
[NASA-CASE-HSC-10959]	c15 N71-26243	[NASA-CASE-XNP-06509]		
WHEELER, R. K.		WIKER, G. A.	Compact artificial hand	c54 N77-32723
Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient		[NASA-CASE-NPO-13906-1]		
[NASA-CASE-ERC-10073-1]	c24 N74-19769	WILK, B. T.	Kine-Pak: A self-contained, electrical power generator system	
WHEELER, S.				
Wind tunnel microphone structure Patent				
[NASA-CASE-XNP-00250]	c11 N71-28779			
WHEELER, S. B.				
Fluid containers and resealable septum therefor Patent				
[NASA-CASE-NPO-10123]	c15 N71-24835			
WHIPPEN, E. L.				
Grain refinement control in TIG arc welding				
[NASA-CASE-HSC-19095-1]	c37 N75-19683			
WHIPPLE, D. W.				
Microcircuit negative cutter				
[NASA-CASE-XLA-09843]	c15 N72-27485			
WHIPPLE, E. C., JR.				
Method and apparatus for determining satellite orientation utilizing spatial energy sources Patent				
[NASA-CASE-IGS-00466]	c21 N70-34297			

INVENTOR INDEX

WINGFIELD, G. A.

[NASA-CASE-LAR-11551-1] c44 N78-22468
WILEY, F. L.
 Temperature regulation circuit Patent
 [NASA-CASE-INP-02792] c14 N71-28958
WILEY, P. H.
 Logarithmic circuit with wide dynamic range
 [NASA-CASE-LAR-12145-1] c33 N78-32339
WILGUS, D. S.
 Adaptive voting computer system
 [NASA-CASE-MSC-13932-1] c62 N74-14920
WILHELM, H. E.
 Apparatus for extraction and separation of a
 preferentially photo-dissociated molecular
 isotope into positive and negative ions by
 means of an electric field
 [NASA-CASE-LEW-12465-1] c25 N78-25148
WILHITE, W. F.
 Micropacked column for a chromatographic system
 [NASA-CASE-INP-04816] c06 N69-39936
WILKEY, J. W., JR.
 Velocity package Patent
 [NASA-CASE-XLA-01339] c31 N71-15692
 Variable dihedral shuttle orbiter
 [NASA-CASE-LAR-10706-2] c05 N77-31132
WILKINS, J. B.
 Apparatus for microbiological sampling
 [NASA-CASE-LAR-11069-1] c35 N75-12272
 Automatic inoculating apparatus
 [NASA-CASE-LAR-11074-1] c51 N75-13502
 Automatic microbial transfer device
 [NASA-CASE-LAR-11354-1] c35 N75-27330
 Measurement of gas production of microorganisms
 [NASA-CASE-LAR-11326-1] c35 N75-33368
 Automated single-slide staining device
 [NASA-CASE-LAR-11649-1] c51 N77-27677
 Electrochemical data signal process and display
 [NASA-CASE-LAR-11922-1] c25 N78-17171
WILL, H. A.
 Process for fabricating SiC semiconductor devices
 [NASA-CASE-LEW-12094-1] c76 N76-25049
WILL, R. W.
 Attitude control and damping system for
 spacecraft Patent
 [NASA-CASE-XLA-02551] c21 N71-21708
WILLIAMS, B. A.
 Thermistor holder for skin temperature
 measurements
 [NASA-CASE-ARC-10855-1] c52 N77-10780
 Liquid cooled brassiere and method of diagnosing
 malignant tumors therewith
 [NASA-CASE-ARC-11007-1] c52 N77-14736
 Cooling system for removing metabolic heat from
 an hermetically sealed spacesuit
 [NASA-CASE-ARC-11059-1] c54 N78-32721
 Subcutaneous channeling probe
 [NASA-CASE-ARC-11091-1] c52 N79-11684
WILLIAMS, D. D.
 Apparatus for changing the orientation and
 velocity of a spinning body traversing a path
 Patent
 [NASA-CASE-HQN-00936] c31 N71-29050
WILLIAMS, D. E.
 Dual mode solid state power switch
 [NASA-CASE-MFS-22880-1] c33 N76-31410
 Dual mode solid state power switch
 [NASA-CASE-MFS-22880-2] c33 N77-31407
WILLIAMS, D. W.
 Low temperature aluminum alloy Patent
 [NASA-CASE-INP-02786] c17 N71-20743
WILLIAMS, E. F.
 Automatic liquid inventory collecting and
 dispensing unit
 [NASA-CASE-LAR-11071-1] c35 N75-19611
WILLIAMS, J. G.
 Light regulator
 [NASA-CASE-LAR-10836-1] c26 N72-27784
 Light intensity strain analysis
 [NASA-CASE-LAR-10765-1] c32 N73-20740
WILLIAMS, J. R.
 Holographic stress analyzer for solder joints
 [NASA-CASE-MFS-20687] c16 N72-11415
 Holographic thin film analyzer
 [NASA-CASE-MFS-20823-1] c16 N73-30476
WILLIAMS, L. A., JR.
 Fluid velocity measuring device
 [NASA-CASE-LAR-11729-1] c34 N79-12359
WILLIAMS, R. D.
 Measurement of time differences between luminous
 events Patent
 [NASA-CASE-XLA-01987] c23 N71-23976
 Volumetric direct nuclear pumped laser
 [NASA-CASE-LAR-12183-1] c36 N79-18307
WILLIAMS, R. L.
 Non-destructive method for applying and removing
 instrumentation on helicopter rotor blades
 [NASA-CASE-LAR-11201-1] c35 N78-24515
WILLIAMS, S. B.
 Bidirectional step torque filter with zero
 backlash characteristic Patent
 [NASA-CASE-IGS-04227] c15 N71-21744
WILLIAMS, T. E.
 System for and method of freezing biological
 tissue
 [NASA-CASE-GSC-12173-1] c51 N79-10694
WILLIAMS, W. P.
 System for interference signal nulling by
 polarization adjustment
 [NASA-CASE-NPO-13140-1] c32 N75-24902
 Dual band combiner for horn antenna
 [NASA-CASE-NPO-14519-1] c32 N79-17068
WILLIS, A. E.
 Static inverters which sum a plurality of waves
 Patent
 [NASA-CASE-INP-00663] c08 N71-18752
WILLNER, K.
 Inverter oscillator with voltage feedback
 [NASA-CASE-NPO-10760] c09 N72-25254
WILNER, B. H.
 Electrolytically regenerative hydrogen-oxygen
 fuel cell Patent
 [NASA-CASE-XLE-04526] c03 N71-11052
WILSON, A. B.
 Vehicular impact absorption system
 [NASA-CASE-NPO-14014-1] c37 N79-10420
WILSON, D. J.
 Wind measurement system
 [NASA-CASE-MFS-23362-1] c47 N77-10753
WILSON, E. E.
 Wind tunnel
 [NASA-CASE-LAR-10135-1] c09 N79-21083
WILSON, I. J.
 Method of producing complex aluminum alloy parts
 of high temper, and products thereof
 [NASA-CASE-MSC-19693-1] c26 N78-24333
WILSON, J. C.
 Exhaust flow deflector
 [NASA-CASE-LAR-11570-1] c34 N76-18364
WILSON, L. E.
 Phase modulating with odd and even finite power
 series of a modulating signal
 [NASA-CASE-LAR-11607-1] c32 N77-14292
WILSON, M. L.
 Nondestructive spot test method for titanium and
 titanium alloys
 [NASA-CASE-LAR-10539-1] c17 N73-12547
 Nondestructive spot test method for magnesium
 and magnesium alloys
 [NASA-CASE-LAR-10953-1] c17 N73-27446
WILSON, R. H., JR.
 Space simulator Patent
 [NASA-CASE-INP-00459] c11 N70-38675
WILSON, R. E.
 Automatic pump Patent
 [NASA-CASE-INP-04731] c15 N71-24042
WILSON, R. L.
 Twin-capacitive shaft angle encoder with analog
 output signal
 [NASA-CASE-ARC-10897-1] c33 N77-31404
WILSON, T. G.
 Regulated dc-to-dc converter for voltage step-up
 or step-down with input-output isolation
 [NASA-CASE-HQN-10792-1] c33 N74-11049
WILSON, W. A.
 Methods and apparatus employing vibratory energy
 for wrenching Patent
 [NASA-CASE-MFS-20586] c15 N71-17686
WILSON, W. O.
 Rocket chamber leak test fixture
 [NASA-CASE-IFR-09479] c14 N69-27503
WINBER, R. T.
 Silicide coatings for refractory metals Patent
 [NASA-CASE-XLE-10910] c18 N71-29040
WINBLADE, R. L.
 Energy management system for glider type vehicle
 Patent
 [NASA-CASE-IFR-00756] c02 N71-13421
WINGFIELD, G. A.
 Resonant waveguide stark cell

[NASA-CASE-LAR-11352-1] c33 N75-26245
WINIARSKI, P. J.
 Wabble gear drive mechanism
 [NASA-CASE-WOO-00625] c37 N78-17385
WINITZ, M.
 Amino acid analysis
 [NASA-CASE-NPO-12130-1] c25 N75-14844
 Reduction of blood serum cholesterol
 [NASA-CASE-NPO-12119-1] c52 N75-15270
WINKELSTEIN, R. A.
 Noninterruptable digital counting system Patent
 [NASA-CASE-INP-09759] c08 N71-24891
 Controlled oscillator system with a time
 dependent output frequency
 [NASA-CASE-NPO-11962-1] c33 N74-10194
WINKLER, C. E.
 Static inverters which sum a plurality of waves
 Patent
 [NASA-CASE-INP-00663] c08 N71-18752
WINKLER, T.
 AC logic flip-flop circuits Patent
 [NASA-CASE-XGS-00823] c10 N71-15910
WINN, L. E.
 Ellipsograph for pantograph Patent
 [NASA-CASE-XLA-03102] c14 N71-21079
 Lathe tool bit and holder for machining
 fiberglass materials
 [NASA-CASE-XLA-10470] c15 N72-21489
 Liquid waste feed system
 [NASA-CASE-LAR-10365-1] c05 N72-27102
WIRTH, M. N.
 Selective data segment monitoring system
 [NASA-CASE-ARC-10899-1] c60 N77-19760
WISE, R. C.
 Space suit
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YASUI, R. H.

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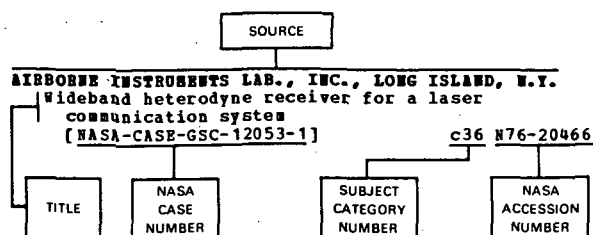
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JULY 1979

Section 2

Typical Source Index Listing



Listings in this index are arranged alphabetically by source. The title of the document provides the user with a brief description of the subject matter. The NASA Case Number is the prime access point to patent documents. The subject category number indicates the category in Section 1 (Abstracts) in which the citation is located. The NASA accession number denotes the number by which the citation is identified within the subject category. The titles are arranged under each source in ascending accession number order.

A

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Automatic battery charger Patent
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Tensile strength testing device Patent
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Method for making conductors for ferrite memory arrays
[NASA-CASE-LAR-10994-1] c24 N75-13032

APPLIED MAGNETICS CORP., GOLETA, CALIF.
Magnetic recording head and method of making same Patent
[NASA-CASE-GSC-10097-1] c08 N71-27210

APPLIED PHYSICS LAB., JOHNS HOPKINS UNIV., LAUREL, MD.
Open loop digital frequency multiplier
[NASA-CASE-HSC-12709-1] c33 N77-24375

APPLIED PHYSICS LAB., JOHNS HOPKINS UNIV., SILVER SPRING, MD.
Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245

APPLIED SPACE PRODUCTS, INC., PALO ALTO, CALIF.
Intumescent paints Patent
[NASA-CASE-ARC-10099-1] c18 N71-15469

ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LAB., HOFFETT FIELD, CALIF.
Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130

ASTRO-SPACE LABS., INC., HUNTSVILLE, ALA.
Linear differential pressure sensor Patent
[NASA-CASE-INP-01974] c14 N71-22752

ATLANTIC RESEARCH CORP., ALEXANDRIA, VA.
Spherically-shaped rocket motor Patent
[NASA-CASE-IRQ-01897] c28 N70-35381

AUBURN RESEARCH FOUNDATION, INC., ALA.
Shear modulated fluid amplifier Patent
[NASA-CASE-HFS-10412] c12 N71-17578

Laser coolant and ultraviolet filter
[NASA-CASE-HFS-20180] c16 N72-12440

AUBURN UNIV., ALA.
Automatic frequency control for FM transmitter
[NASA-CASE-HFS-21540-1] c32 N74-19790

Isolated output system for a class D switching-mode amplifier
[NASA-CASE-HFS-21616-1] c33 N75-30429

Frequency modulated oscillator
[NASA-CASE-HFS-23181-1] c33 N77-17351

AUTONETICS, ANAHEIM, CALIF.
Adaptive voting computer system
[NASA-CASE-HSC-13932-1] c62 N74-14920

AVCO CORP., NEW YORK.
Signal multiplexer
[NASA-CASE-XGS-01110] c07 N69-24334

AVCO CORP., WILMINGTON, MASS.
Method and apparatus for making a heat insulating and ablative structure Patent
[NASA-CASE-XMS-02009] c33 N71-20834

B

BALDWIN ELECTRONICS, INC., LITTLE ROCK, ARK.
Digital plus analog output encoder

[NASA-CASE-GSC-12115-1]	c62 N76-31946	Injection head for delivering liquid fuel and oxidizers	
BALDWIN-LIMA-HAMILTON CORP., SAN FRANCISCO, CALIF.		[NASA-CASE-NPO-10046]	c28 N72-17843
Valve actuator Patent		Flight control system	
[NASA-CASE-XBO-01208]	c15 N70-35409	[NASA-CASE-MSC-13397-1]	c21 N72-25595
BALL BROS. RESEARCH CORP., BOULDER, COLO.		BELL AND HOWELL CO., CHICAGO, ILL.	
Turnstile slot antenna		Boron trifluoride coatings for thermoplastic materials and method of applying same in glow discharge	
[NASA-CASE-GSC-11428-1]	c32 N74-20864	[NASA-CASE-ARC-11057-1]	c27 N78-31233
Star scanner		Process for producing a well-adhered durable optical coating on an optical plastic substrate	
[NASA-CASE-GSC-11569-1]	c89 N74-30886	[NASA-CASE-ARC-11039-1]	c74 N78-32854
BARNES ENGINEERING CO., STAMFORD, CONN.		BELLCOMM, INC., WASHINGTON, D. C.	
Multi-lobar scan horizon sensor Patent		Physical correction filter for improving the optical quality of an image	
[NASA-CASE-XGS-00809]	c21 N70-35427	[NASA-CASE-BON-10542-1]	c74 N75-25706
Horizon sensor with a plurality of fixedly positioned radiation compensated radiation sensitive detectors Patent		BENDIX CORP., ANN ARBOR, MICH.	
[NASA-CASE-XNP-06957]	c14 N71-21088	Circuit breaker utilizing magnetic latching relays Patent	
Miniature carbon dioxide sensor and methods		[NASA-CASE-MSC-11277]	c09 N71-29008
[NASA-CASE-MSC-13332-1]	c14 N72-21408	BENDIX CORP., COLUMBIA, MD.	
BATTLE COLUMBUS LABS., OHIO.		Microwave dichroic plate	
Attaching of strain gages to substrates		[NASA-CASE-GSC-12171-1]	c33 N78-18313
[NASA-CASE-FRC-10093-1]	c35 N78-18393	BENDIX CORP., DAVENPORT, IOWA.	
BATTLE MEMORIAL INST., COLUMBUS, OHIO.		Dual stage check valve	
Process for preparation of dianilinosilanes Patent		[NASA-CASE-MSC-13587-1]	c15 N73-30459
[NASA-CASE-XMF-06409]	c06 N71-23230	BENDIX CORP., DETROIT, MICH.	
Process for preparation of high-molecular-weight polyaryloxysilanes Patent		Deformable vehicle wheel Patent	
[NASA-CASE-XNP-08674]	c06 N71-28807	[NASA-CASE-MFS-20400]	c31 N71-18611
Method for determining presence of OH in magnesium oxide		BENDIX CORP., HUNTSVILLE, ALA.	
[NASA-CASE-NPO-10774]	c06 N72-17095	Multi axes vibration fixtures	
Porus electrode comprising a bonded stack of pieces of corrugated metal foil		[NASA-CASE-MFS-20242]	c14 N73-19421
[NASA-CASE-GSC-11368-1]	c09 N73-32108	BENDIX CORP., KENNEDY SPACE CENTER, FLA.	
Method of making porous conductive supports for electrodes		Color perception tester	
[NASA-CASE-GSC-11367-1]	c44 N74-19692	[NASA-CASE-KSC-10278]	c05 N72-16015
BATTLE MEMORIAL INST., RICHLAND, WASH.		BENDIX CORP., TETERBORO, N. J.	
Low temperature aluminum alloy Patent		Evacuation valve	
[NASA-CASE-XMF-02786]	c17 N71-20743	[NASA-CASE-LAR-10061-1]	c15 N72-31483
BATTLE-NORTHWEST, RICHLAND, WASH.		BENDIX RESEARCH LABS., SOUTHFIELD, MICH.	
Preparation of high purity copper fluoride		Image tube	
[NASA-CASE-LFW-10794-1]	c06 N72-17093	[NASA-CASE-GSC-11602-1]	c33 N74-21850
BAUSCH AND LOMB, INC., ROCHESTER, N. Y.		BOEING AEROSPACE CO., HOUSTON, TEX.	
Petzval type objective including field shaping lens Patent		Method and apparatus for eliminating luminol interference material	
[NASA-CASE-GSC-10700]	c23 N71-3002	[NASA-CASE-MSC-16260-1]	c51 N78-18674
Illumination system including a virtual light source Patent		BOEING AEROSPACE CO., SEATTLE, WASH.	
[NASA-CASE-HQN-10781]	c23 N71-3029	Method and apparatus for fabricating improved solar cell modules	
BAYLOR UNIV., HOUSTON, TEX.		[NASA-CASE-NPO-14416-1]	c44 N79-18446
EEG sleep analyzer and method of operation Patent		BOEING CO., COCOA BEACH, FLA.	
[NASA-CASE-MSC-13282-1]	c05 N71-24729	Positive contact resistance soldering unit	
Compressible biomedical electrode		[NASA-CASE-KSC-10242]	c15 N72-23497
[NASA-CASE-MSC-13648]	c05 N72-27103	Variable resistance constant tension and lubrication device	
BECKMAN INSTRUMENTS, INC., ANAHEIM, CALIF.		[NASA-CASE-KSC-10723-1]	c37 N75-13265
Pressure modulating valve		BOEING CO., HOUSTON, TEX.	
[NASA-CASE-MSC-14905-1]	c37 N77-28487	Fluid sample collection and distribution system	
BECKMAN INSTRUMENTS, INC., FULLERTON, CALIF.		[NASA-CASE-MSC-16841-1]	c51 N78-22590
Pulse activated polarographic hydrogen detector Patent		BOEING CO., HUNTSVILLE, ALA.	
[NASA-CASE-XNP-06531]	c14 N71-17575	Hydrogen fire blink detector	
Electronic divider and multiplier using photocells Patent		[NASA-CASE-MFS-15063]	c14 N72-25412
[NASA-CASE-IFR-05637]	c09 N71-19480	Boreoscope with variable angle scope	
Pulse generating circuit employing switch means on ends of delay line for alternately charging and discharging same Patent		[NASA-CASE-MFS-15162]	c14 N72-32452
[NASA-CASE-XNP-00745]	c10 N71-28960	Guide for a typewriter	
Gas operated actuator		[NASA-CASE-MFS-15218-1]	c37 N77-19457
[NASA-CASE-NPO-11340]	c15 N72-33477	BOEING CO., PASADENA, TEX.	
Specific wavelength colorimeter		Medical subject monitoring systems	
[NASA-CASE-MSC-14081-1]	c35 N74-27860	[NASA-CASE-MSC-14180-1]	c52 N76-14757
BECKMAN INSTRUMENTS, INC., SOUTH PASADENA, CALIF.		BOEING CO., SEATTLE, WASH.	
Pneumatic system for controlling and actuating pneumatic cyclic devices		Strain gage Patent Application	
[NASA-CASE-XMS-04843]	c03 N69-21469	[NASA-CASE-FRC-10053]	c14 N70-35587
BECTON, DICKINSON AND CO., RUTHERFORD, N. J.		Method of inhibiting stress corrosion cracks in titanium alloys Patent	
Vacuum probe surface sampler		[NASA-CASE-NPO-10271]	c17 N71-16393
[NASA-CASE-LAR-10623-1]	c14 N73-30395	Strain sensor for high temperatures	
BELL AEROSPACE CO., BUFFALO, N. Y.		[NASA-CASE-XNP-09205]	c14 N71-17657
Modulator for tone and binary signals		Method of hydrostatically extruding refractory materials	
[NASA-CASE-GSC-11743-1]	c32 N75-24981	[NASA-CASE-NPO-10811]	c15 N71-34425
Correlation type phase detector		Forming tool for ribbon or wire	
[NASA-CASE-GSC-11744-1]	c33 N75-26243	[NASA-CASE-XLA-05966]	c15 N72-12408
BELL AEROSYSTEMS CO., BUFFALO, N. Y.		Solar cell assembly test method	
Lunar landing flight research vehicle Patent		[NASA-CASE-NPO-10401]	c03 N72-20033
[NASA-CASE-XFR-00929]	c31 N70-34966	Thermal compression bonding of interconnectors	
Flexibly connected support and skin		[NASA-CASE-GSC-10303]	c15 N72-22487
[NASA-CASE-XLA-01027]	c31 N71-24035	Extrusion can	
		[NASA-CASE-NPO-10812]	c15 N73-13464

SOURCE INDEX

DOUGLAS AIRCRAFT CO., INC.,

Radiation sensitive solid state switch
[NASA-CASE-NPO-10817-1] c08 N73-30135
Miniature hydraulic actuator
[NASA-CASE-LAR-11522-1] c34 N74-34881
Aircraft design concept
[NASA-CASE-LAR-11852-1] c05 N77-15027
Plasma cleaning device
[NASA-CASE-MFS-22906-1] c75 N78-27913
BOEING COMMERCIAL AIRPLANE CO., SEATTLE, WASH.
Fuselage structure using advanced technology
metal matrix fiber reinforced composites
[NASA-CASE-LAR-11688-1] c05 N78-18045
Improved tire/wheel concept
[NASA-CASE-LAR-11695-1] c37 N78-22374
BORG-WARNER CORP., CHICAGO, ILL.
Data transfer system Patent
[NASA-CASE-NPO-12107] c08 N71-27255
BROWN AND ROOT-NORTHROP, HOUSTON, TEX.
Anti-fog composition
[NASA-CASE-MSC-13530-2] c23 N75-14834
BROWN ENGINEERING CO., INC., HUNTSVILLE, ALA.
Air bearing Patent
[NASA-CASE-NXP-01887] c15 N71-10617
Collapsible nozzle extension for rocket engines
Patent
[NASA-CASE-MFS-11497] c28 N71-16224
Inspection gage for boss Patent
[NASA-CASE-NXP-04966] c14 N71-17658
Method of recording a gas flow pattern Patent
[NASA-CASE-NXP-01779] c12 N71-20815
Trigonometric vehicle guidance assembly which
aligns the three perpendicular axes of two
three-axes systems Patent
[NASA-CASE-NXP-00684] c21 N71-21688
Vapor liquid separator Patent
[NASA-CASE-NXP-00402] c15 N71-23023
Thruster maintenance system Patent
[NASA-CASE-MFS-20325] c28 N71-27095
Inflatable transpiration cooled nozzle
[NASA-CASE-MFS-20619] c28 N72-11708

C

CALIFORNIA COMPUTER PRODUCTS, INC., ANAHEIM.
Temperature regulation circuit Patent
[NASA-CASE-NXP-02792] c14 N71-28958
CALIFORNIA INST. OF TECH., PASADENA.
Attitude control for spacecraft Patent
[NASA-CASE-NXP-02982] c31 N70-41855
CALIFORNIA UNIV., BERKELEY.
Adjustable mount for a trihedral mirror Patent
[NASA-CASE-NXP-08907] c23 N71-29123
Infrared detectors
[NASA-CASE-LAR-10728-1] c14 N73-12445
Resistive anode image converter
[NASA-CASE-HQN-10876-1] c33 N76-27473
Low gravity phase separator
[NASA-CASE-MSC-14773-1] c35 N78-12390
Automatic multiple-sample applicator and
electrophoresis apparatus
[NASA-CASE-ARC-10991-1] c25 N78-14104
Process for preparing higher oxides of the
alkali and alkaline earth metals
[NASA-CASE-ARC-10992-1] c26 N78-32229
Microelectrophoretic apparatus and process
[NASA-CASE-ARC-11121-1] c25 N79-14169
CALIFORNIA UNIV., LOS ANGELES.
Continuous plasma light source
[NASA-CASE-NXP-04167-2] c25 N72-24753
Continuous plasma laser
[NASA-CASE-NXP-04167-3] c36 N77-19416
CARBORUNDUM CO., NIAGARA FALLS, N. Y.
Ceramic fiber insulating material and methods of
producing same
[NASA-CASE-MSC-14795-1] c27 N76-15314
Ceramic fiber insulating material and method of
producing same
[NASA-CASE-MSC-14795-2] c24 N78-25138
CATHOLIC UNIV. OF AMERICA, WASHINGTON, D. C.
Electromagnetic wave energy converter
[NASA-CASE-GSC-11394-1] c09 N73-32109
CHANCE VUGHT CORP., DALLAS, TEX.
Coupling for linear shaped charge Patent
[NASA-CASE-XLA-00189] c33 N70-36846
Spin forming tubular elbows Patent
[NASA-CASE-NXP-01083] c15 N71-22723
Single action separation mechanism Patent
[NASA-CASE-XLA-00188] c15 N71-22874

CHEMISOIL CORP., BAKERSFIELD, CALIF.
Process for removing sulfur dioxide from gas
streams
[NASA-CASE-MSC-16299-1] c45 N77-31668
CHRYSLER CORP., DETROIT, MICH.
Ceramic insulation for radiant heating
environments and method of preparing the same
Patent
[NASA-CASE-MFS-14253] c33 N71-24858
Constant temperature heat sink for calorimeters
Patent
[NASA-CASE-NXP-04208] c33 N71-29051
CHRYSLER CORP., HUNTSVILLE, ALA.
Apparatus for ejection of an instrument cover
[NASA-CASE-NXP-04132] c15 N69-27502
COLLINS RADIO CO., CEDAR RAPIDS, IOWA.
Power responsive overload sensing circuit Patent
[NASA-CASE-GSC-10667-1] c10 N71-33129
COLLINS RADIO CO., DALLAS, TEX.
Signal path series step biased multidevice high
efficiency amplifier Patent
[NASA-CASE-GSC-10668-1] c07 N71-28430
Heat conductive resiliently compressible
structure for space electronics package
modules Patent
[NASA-CASE-MSC-12389] c33 N71-29052
Infinite range electronics gain control circuit
[NASA-CASE-GSC-10786-1] c10 N72-28241
COLORADO STATE UNIV., FORT COLLINS.
Apparatus for extraction and separation of a
preferentially photo-dissociated molecular
isotope into positive and negative ions by
means of an electric field
[NASA-CASE-LEW-12465-1] c25 N78-25148
COMPREHENSIVE DESIGNERS, INC., SHERMAN OAKS, CALIF.
Vehicle for use in planetary exploration
[NASA-CASE-NPO-11366] c11 N73-26238
COMPUTER CONTROL CO., INC., FRAMINGHAM, MASS.
Test fixture for pellet-like electrical elements
[NASA-CASE-NXP-06032] c09 N69-21926
Support structure for irradiated elements Patent
[NASA-CASE-NXP-06031] c15 N71-15606
Counter Patent
[NASA-CASE-NXP-06234] c10 N71-27137
COMPUTER SCIENCES CORP., BAY ST. LOUIS, MISS.
Oceanic wave measurement system
[NASA-CASE-MFS-23862-1] c48 N79-10689
CONRAC CORP., PASADENA, CALIF.
Penetrating radiation system for detecting the
amount of liquid in a tank Patent
[NASA-CASE-MSC-12280] c27 N71-16348
COOPER UNION, HOUSTON, TEX.
Pyrolysis system and process
[NASA-CASE-MSC-12669-1] c44 N76-16621
CORNELL UNIV., ITHACA, N. Y.
Flux sensing device using a tubular core with
toroidal gating coil and solenoidal output
coil wound thereon Patent
[NASA-CASE-XGS-01881] c09 N70-40123
CRANE CO., BURBANK, CALIF.
Hydraulic transformer Patent
[NASA-CASE-MFS-20830] c15 N71-30028
CURTISS-WRIGHT CORP., WOOD-RIDGE, N.J.
Gas turbine combustion apparatus Patent
[NASA-CASE-XLE-103477-1] c28 N71-20330
CUTLER-HAMMER, INC., MELVILLE, N.Y.
Wideband heterodyne receiver for laser
communication system
[NASA-CASE-GSC-12053-1] c32 N77-28346

D

DELAWARE UNIV., NEWARK.
High field CdS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088
DENVER UNIV., COLO.
Metal shearing energy absorber
[NASA-CASE-HQN-10638-1] c15 N73-30460
DEPARTMENT OF TRANSPORTATION, CAMBRIDGE, MASS.
Optical noise suppression device and method
[NASA-CASE-MSC-12640-1] c74 N76-31998
DORNE AND HARGOLIN, INC., BOHEMIA, N.Y.
Nose cone mounted heat resistant antenna Patent
[NASA-CASE-XNS-04312] c07 N71-22984
DOUGLAS AIRCRAFT CO., INC., SANTA MONICA, CALIF.
Recoverable single stage spacecraft booster Patent
[NASA-CASE-NXP-01973] c31 N70-41588
Switching circuit employing regeneratively
connected complementary transistors Patent

[NASA-CASE-XNP-02654] c10 N70-42032
Split nut separation system Patent
[NASA-CASE-XNP-06914] c15 N71-21489
Artificial gravity spin deployment system Patent
[NASA-CASE-XNP-02595] c31 N71-21881
Portable superclean air column device Patent
[NASA-CASE-XNP-03212] c15 N71-22721
Energy absorption device Patent
[NASA-CASE-XNP-01848] c15 N71-28959
Collapsible pistons
[NASA-CASE-HSC-13789-1] c11 N73-32152
DUKE UNIV., DURHAM, N. C.
Regulated dc-to-dc converter for voltage step-up
or step-down with input-output isolation
[NASA-CASE-HQN-10792-1] c33 N74-11049
DUBOFT ELECTRON TUBES, CLIFTON, N. J.
High contrast cathode ray tube
[NASA-CASE-ERC-10468] c09 N72-20206

E

ECHO SCIENCE CORP., MOUNTAIN VIEW, CALIF.
Dynamic capacitor having a peripherally driven
element and system incorporating the same
[NASA-CASE-XNP-02899-1] c33 N79-21265
ETHEL-MCCULLOUGH, INC., SAN CARLOS, CALIF.
Method of forming ceramic to metal seal Patent
[NASA-CASE-XNP-01263-2] c15 N71-26312
ELECTRAC, INC., ANAHEIM, CALIF.
Optimum predetection diversity receiving system
Patent
[NASA-CASE-XGS-00740] c07 N71-23098
ELECTRIC STORAGE BATTERY CO., RALEIGH, N.C.
Electric battery and method for operating same
Patent
[NASA-CASE-XGS-01674] c03 N71-29129
Storage battery comprising negative plates of a
wedge shaped configuration
[NASA-CASE-NPO-11806-1] c44 N74-19693
ELECTRIC STORAGE BATTERY CO., YARDLEY, PA.
Electric storage battery
[NASA-CASE-NPO-11021] c03 N72-20032
ELECTRO-OPTICAL SYSTEMS, INC., PASADENA, CALIF.
Focussing system for an ion source having
apertured electrodes Patent
[NASA-CASE-XNP-03332] c09 N71-10618
Electrolytically regenerative hydrogen-oxygen
fuel cell Patent
[NASA-CASE-XLE-04526] c03 N71-11052
Method of producing refractory bodies having
controlled porosity Patent
[NASA-CASE-LEW-10393-1] c17 N71-15468
Soil particles separator, collector and viewer
Patent
[NASA-CASE-XNP-09770] c15 N71-20440
Particle detection apparatus including a
ballistic pendulum Patent
[NASA-CASE-XMS-04201] c14 N71-22990
Polarity sensitive circuit Patent
[NASA-CASE-XNP-00952] c10 N71-23271
Ion engine casing construction and method of
making same Patent
[NASA-CASE-XNP-06942] c28 N71-23293
Material handling device Patent
[NASA-CASE-XNP-09770-3] c11 N71-27036
Screen particle separator
[NASA-CASE-XNP-09770-2] c15 N72-22483
ELECTRONIC IMAGE SYSTEMS CORP., CAMBRIDGE, MASS.
Drying apparatus for photographic sheet material
[NASA-CASE-GSC-11074-1] c14 N73-28489
EVEN KNIGHT CORP., EAST WATICK, MASS.
Method and means for providing an absolute power
measurement capability Patent
[NASA-CASE-ERC-11020] c14 N71-26774

F

FAIRCHILD HILLER CORP., GERMANTOWN, MD.
Two axis fluxgate magnetometer Patent
[NASA-CASE-GSC-10441-1] c14 N71-27325
Space simulation and radiative property testing
system and method Patent
[NASA-CASE-HFS-20096] c14 N71-30026
Thermal control system for a spacecraft modular
housing
[NASA-CASE-GSC-11018-1] c31 N73-30829
PARADAY LABS., INC., LA JOLLA, CALIF.
Method for attaching a fused-quartz mirror to a
conductive metal substrate

[NASA-CASE-HFS-23405-1] c26 N77-29260
FEDERAL-HOGUL CORP., LOS ALAMITOS, CALIF.
Hydraulic casting of liquid polymers Patent
[NASA-CASE-XNP-07659] c06 N71-22975
FLORIDA UNIV., GAINESVILLE.
Safety flywheel
[NASA-CASE-HQN-10888-1] c44 N79-14527
FEC CORP., NEW YORK.
Decomposition unit Patent
[NASA-CASE-XMS-00583] c28 N70-38504
FOOTHILL COLLEGE, LOS ALTOS HILLS, CALIF.
Electrical conductivity cell and method for
fabricating the same
[NASA-CASE-ABC-10810-1] c33 N76-19339
FORD MOTOR CO., DEARBORN, MICH.
Omnidirectional acceleration device Patent
[NASA-CASE-HQN-10780] c14 N71-30265

G

GARRETT CORP., LOS ANGELES, CALIF.
Relief valve
[NASA-CASE-XMS-05894-1] c15 N69-21924
Portable environmental control system Patent
[NASA-CASE-XMS-09632-1] c05 N71-11203
Dual latching solenoid valve Patent
[NASA-CASE-XMS-05890] c09 N71-23191
Water management system and an electrolytic cell
therefor Patent
[NASA-CASE-HSC-10960-1] c03 N71-24718
Low cycle fatigue testing machine
[NASA-CASE-LAR-10270-1] c32 N72-25877
Process for separation of dissolved hydrogen
from water by use of palladium and process for
coating palladium with palladium black
[NASA-CASE-HSC-13335-1] c06 N72-31140
Flexible joint for pressurizable garment
[NASA-CASE-HSC-11072] c54 N74-32546
Gas compression apparatus
[NASA-CASE-HSC-14757-1] c35 N78-10428
Wind tunnel
[NASA-CASE-LAR-10135-1] c09 N79-21083
Water separator
[NASA-CASE-XMS-01295-1] c37 N79-21345
GCA CORP., BEDFORD, MASS.
Analytical photoionization mass spectrometer
with an argon gas filter between the light
source and monochromator Patent
[NASA-CASE-LAR-10180-1] c06 N71-14461
GENERAL DYNAMICS/ASTRONAUTICS, SAN DIEGO, CALIF.
Determination of spot weld quality Patent
[NASA-CASE-XNP-02588] c15 N71-18613
Pressure transducer calibrator Patent
[NASA-CASE-XNP-01660] c14 N71-23036
Plating nickel on aluminum castings Patent
[NASA-CASE-XNP-04148] c17 N71-24830
GENERAL DYNAMICS/CONVAIR, SAN DIEGO, CALIF.
Signal generator
[NASA-CASE-XNP-05612] c09 N69-21468
Separation nut Patent
[NASA-CASE-XGS-01971] c15 N71-15922
Zero gravity separator Patent
[NASA-CASE-XLE-00586] c15 N71-15968
Catalyst cartridge for carbon dioxide reduction
unit
[NASA-CASE-LAR-10551-1] c25 N74-12813
Heat exchanger
[NASA-CASE-HFS-22991-1] c34 N77-10463
GENERAL DYNAMICS CORP., SAN DIEGO, CALIF.
Light radiation direction indicator with a
baffle of two parallel grids
[NASA-CASE-XNP-03930] c14 N69-24331
Method and apparatus for attaching physiological
monitoring electrodes Patent
[NASA-CASE-XPR-07658-1] c05 N71-26293
Driving lamps by induction
[NASA-CASE-HFS-21214-1] c09 N73-30181
GENERAL ELECTRIC CO., CINCINNATI, OHIO.
Dual output variable pitch turbofan actuation
system
[NASA-CASE-LEW-12419-1] c07 N77-14025
Reverse pitch fan with divided splitter
[NASA-CASE-LEW-12760-1] c07 N77-17059
Leading edge protection for composite blades
[NASA-CASE-LEW-12550-1] c24 N77-19170
Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12830-1] c07 N77-23106
Blade retainer assembly
[NASA-CASE-LEW-12608-1] c07 N77-27116

SOURCE INDEX

HAMILTON STANDARD, HARTFORD, CONN.

- Platform for a swing root turbomachinery blade
[NASA-CASE-LEW-12312-1] c07 N77-32148
- Deformable bearing seat
[NASA-CASE-LEW-12527-1] c37 N77-32500
- Bearing seat usable in a gas turbine engine
[NASA-CASE-LEW-12477-1] c37 N77-32501
- Oil cooling system for a gas turbine engine
[NASA-CASE-LEW-12321-1] c37 N78-10467
- Impact absorbing blade mounts for variable pitch blades
[NASA-CASE-LEW-12313-1] c37 N78-10468
- Variable thrust nozzle for quiet turbofan engine and method of operating same
[NASA-CASE-LEW-12317-1] c07 N78-17055
- Gas turbine engine with convertible accessories
[NASA-CASE-LEW-12390-1] c07 N78-17056
- Variable cycle gas turbine engines
[NASA-CASE-LEW-12916-1] c37 N78-17384
- Gas turbine engine with recirculating bleed
[NASA-CASE-LEW-12452-1] c07 N78-25089
- Redundant disc
[NASA-CASE-LEW-12496-1] c07 N78-33101
- Fuel delivery system including heat exchanger means
[NASA-CASE-LEW-12793-1] c37 N79-11403
- Integrated gas turbine engine-nacelle
[NASA-CASE-LEW-12389-3] c07 N79-14096
- Variable area exhaust nozzle
[NASA-CASE-LEW-12378-1] c07 N79-14097
- Sound-suppressing structure with thermal relief
[NASA-CASE-LEW-12658-1] c71 N79-14871
- GENERAL ELECTRIC CO., CLEVELAND, OHIO.
Variable mixer propulsion cycle
[NASA-CASE-LEW-12917-1] c07 N78-18067
- GENERAL ELECTRIC CO., PHILADELPHIA, PA.
Catalyst for growth of boron carbide single crystal whiskers
[NASA-CASE-XHQ-03903] c15 N69-21922
- Didymium hydrate additive to nickel hydroxide electrodes Patent
[NASA-CASE-IGS-03505] c03 N71-10608
- Bismuth-lead coatings for gas bearings used in atmospheric environments and vacuum chambers Patent
[NASA-CASE-IGS-02011] c15 N71-20739
- Automatic control of liquid cooling garment by cutaneous and external auditory meatus temperatures
[NASA-CASE-MSC-13917-1] c05 N72-15098
- Method for measuring cutaneous sensory perception
[NASA-CASE-MSC-13609-1] c05 N72-25122
- Reaction tester
[NASA-CASE-MSC-13604-1] c05 N73-13114
- Air conditioned suit
[NASA-CASE-LAR-10076-1] c05 N73-20137
- Compton scatter attenuation gamma ray spectrometer
[NASA-CASE-MFS-21441-1] c14 N73-30392
- Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090
- Electrophoretic sample insertion
[NASA-CASE-MFS-21395-1] c25 N74-26948
- Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-MFS-21394-1] c34 N74-27744
- Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759
- Automatic biowaste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804
- Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297
- An improved solar cell module
[NASA-CASE-NPO-14467-1] c44 N79-10529
- GENERAL ELECTRIC CO., PLASANTON, CALIF.
Method of making a cermet Patent
[NASA-CASE-LEW-10219-1] c18 N71-28729
- GENERAL ELECTRIC CO., SCHENECTADY, N. Y.
Superconductive accelerometer Patent
[NASA-CASE-IMP-01099] c14 N71-15969
- Remote manipulator system
[NASA-CASE-MFS-22022-1] c37 N76-15460
- Automatic transponder
[NASA-CASE-GSC-12075-1] c32 N77-31350
- Directionally solidified eutectic gamma plus beta nickel-base superalloys
[NASA-CASE-LEW-12906-1] c26 N77-32279
- GENERAL ELECTRIC CO., UTICA, N. Y.
Method of determining bond quality of power transistors attached to substrates
[NASA-CASE-MFS-21931-1] c37 N75-26372
- GENERAL MOTORS CORP., DETROIT, MICH.
Hermetic sealed vibration damper Patent
[NASA-CASE-MSC-10959] c15 N71-26243
- GENERAL MOTORS CORP., MILWAUKEE, WIS.
Adjustable tension wire guide Patent
[NASA-CASE-XMS-02383] c15 N71-15918
- GENERAL MOTORS CORP., SANTA BARBARA, CALIF.
Resilient wheel Patent
[NASA-CASE-MFS-13929] c15 N71-27091
- GENERAL PRECISION, INC., LITTLE FALLS, N.J.
Reversible current control apparatus Patent
[NASA-CASE-XLA-09371] c10 N71-18724
- GENERAL PRECISION, INC., SUNNYVALE, CALIF.
Broadband video process with very high input impedance
[NASA-CASE-NPO-10199] c09 N72-17156
- GENERAL PRECISION SYSTEMS, INC., LITTLE FALLS, N.J.
Fluidic-thermochromic display device Patent
[NASA-CASE-ERC-10031] c12 N71-18603
- GENERAL TECHNOLOGIES CORP., RESTON, VA.
Method of making reinforced composite structure
[NASA-CASE-LEW-12619-1] c24 N77-19171
- GEOPHYSICS CORP. OF AMERICA, BEDFORD, MASS.
Inflation system for balloon type satellites Patent
[NASA-CASE-XGS-03351] c31 N71-16081
- GEOPHYSICS CORP. OF AMERICA, BOSTON, MASS.
Ionospheric battery Patent
[NASA-CASE-XGS-01593] c03 N70-35408
- GEORGE WASHINGTON UNIV., WASHINGTON, D. C.
Bacteria detection instrument and method
[NASA-CASE-GSC-11533-1] c14 N73-13435
- Arterial pulse wave pressure transducer
[NASA-CASE-GSC-11531-1] c52 N74-27566
- GIANNINI SCIENTIFIC CORP., SANTA ANA, CALIF.
Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318
- Combination automatic-starting electrical plasma torch and gas shutoff valve
[NASA-CASE-XLE-10717] c37 N75-29426
- GINER, INC., WALTHAM, MASS.
Catalyst surfaces for the chromous/chromic redox couple
[NASA-CASE-LEW-13148-1] c44 N79-14538
- GLOBE-UNION, INC., MILWAUKEE, WIS.
Method of coating solar cell with borosilicate glass and resultant product
[NASA-CASE-GSC-11514-1] c03 N72-24037
- GOODYEAR AEROSPACE CORP., AKRON, OHIO
Foldable solar concentrator Patent
[NASA-CASE-XLA-04622] c03 N70-41580
- Method of making a filament-wound container Patent
[NASA-CASE-XLE-03803-2] c15 N71-17651
- Filament wound container Patent
[NASA-CASE-XLE-03803] c15 N71-23816
- Panelized high performance multilayer insulation Patent
[NASA-CASE-MFS-14023] c33 N71-25351
- Thermally activated foaming compositions Patent
[NASA-CASE-LAR-10373-1] c18 N71-26155
- Compression test assembly
[NASA-CASE-LAR-10440-1] c14 N73-32323
- Deployable flexible tunnel
[NASA-CASE-MFS-22636-1] c37 N76-22540
- GRACE (W. R.) AND CO., CLARKSVILLE, MD.
Metal containing polymers from cyclic tetrameric phenylphosphonitridilamides Patent
[NASA-CASE-HQN-10364] c06 N71-27363
- GRUHNAN AIRCRAFT ENGINEERING CORP., BETHPAGE, N. Y.
Sealed cabinetry Patent
[NASA-CASE-MSC-12168-1] c09 N71-18600
- Out of tolerance warning alarm system for plurality of monitored circuits Patent
[NASA-CASE-XMS-10984-1] c10 N71-19417
- GULF GENERAL ATOMIC, SAN DIEGO, CALIF.
Waveform simulator Patent
[NASA-CASE-NPO-10251] c10 N71-27365
- GULTON INDUSTRIES, INC., ALBUQUERQUE, N.MEX.
Analog-to-digital converter
[NASA-CASE-MSC-13110-1] c08 N72-22163

H

HAMILTON STANDARD, HARTFORD, CONN.

- Portable breathing system
[NASA-CASE-MSC-16182-1] c54 N77-21847

HAMILTON STANDARD, WINDSOR LOCKS, CONN.

SOURCE INDEX

HAMILTON STANDARD, WINDSOR LOCKS, CONN.

Venting device for pressurized space suit helmet Patent
[NASA-CASE-IHS-09652-1] c05 N71-26333

Regenerable device for scrubbing breathable air of CO₂ and moisture without special heat exchanger equipment
[NASA-CASE-HSC-14771-1] c54 N77-32722

HAMILTON STANDARD DIV., UNITED AIRCRAFT CORP., WINDSOR LOCKS, CONN.
Condensate removal device for heat exchanger
[NASA-CASE-HSC-14143-1] c77 N75-20139

HARRIS CORP., FORT LAUDERDALE, FLA.
Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154

HARRIS CORP., MELBOURNE, FLA.
Telescoping columns
[NASA-CASE-LAR-12195-1] c37 N78-33446

HAYES INTERNATIONAL CORP., BIRMINGHAM, ALA.
Space craft soft landing system Patent
[NASA-CASE-IHP-02108] c31 N70-36845

Device for preventing high voltage arcing in electron beam welding Patent
[NASA-CASE-IHP-08522] c15 N71-19486

HAYES INTERNATIONAL CORP., HUNTSVILLE, ALA.
Method and apparatus for cryogenic wire stripping Patent
[NASA-CASE-HPS-10340] c15 N71-17628

Self-balancing strain gage transducer Patent
[NASA-CASE-HPS-12827] c14 N71-17656

Automatic closed circuit television arc guidance control Patent
[NASA-CASE-HPS-13046] c07 N71-19433

HAZLETON LABS., FALLS CHURCH, VA.
Use of the enzyme hexokinase for the reduction of inherent light levels
[NASA-CASE-XGS-05533] c04 N69-27487

Light detection instrument Patent
[NASA-CASE-XGS-05534] c23 N71-16355

Lyophilized reaction mixtures Patent
[NASA-CASE-XGS-05532] c06 N71-17705

Firefly pump-metering system
[NASA-CASE-GSC-10218-1] c15 N72-21465

HERCULES, INC., WILMINGTON, DEL.
Method of repairing discontinuity in fiberglass structures
[NASA-CASE-LAR-10416-1] c24 N74-30001

HOFFMAN ELECTRONICS CORP., EL MONTE, CALIF.
Method for producing a solar cell having an integral protective covering
[NASA-CASE-XGS-04531] c03 N69-24267

HONEYWELL, INC., BOPKINS, MINN.
Frequency control network for a current feedback oscillator Patent
[NASA-CASE-GSC-10041-1] c10 N71-19418

HONEYWELL, INC., MINNEAPOLIS, MINN.
Bus voltage compensation circuit for controlling direct current motor
[NASA-CASE-IHS-04215-1] c09 N69-39987

Apparatus for overcurrent protection of a push-pull amplifier Patent
[NASA-CASE-HSC-12033-1] c09 N71-13531

Static inverter Patent
[NASA-CASE-XGS-05289] c09 N71-19470

High impedance measuring apparatus Patent
[NASA-CASE-IHS-08589-1] c09 N71-20569

Clamping assembly for inertial components Patent
[NASA-CASE-IHS-02184] c15 N71-20813

Piezoelectric pump Patent
[NASA-CASE-IHP-05429] c26 N71-21824

Controllers Patent
[NASA-CASE-IHS-07487] c15 N71-23255

Convoluting device for forming convolutions and the like Patent
[NASA-CASE-IHP-05297] c15 N71-23811

Failure sensing and protection circuit for converter networks Patent
[NASA-CASE-GSC-10114-1] c10 N71-27366

Voice operated controller Patent
[NASA-CASE-ILA-04063] c31 N71-33160

Load current sensor for a series pulse width modulated power supply
[NASA-CASE-GSC-10656-1] c09 N72-25249

Radiant source tracker independent of nonconstant irradiance
[NASA-CASE-NPO-11686] c14 N73-29462

Optical instruments
[NASA-CASE-HSC-14096-1] c74 N74-15095

Method of forming shrink-fit compression seal
[NASA-CASE-LAR-11563-1] c37 N77-23482

HOUSTON UNIV., TEX.
Analysis of volatile organic compounds
[NASA-CASE-HSC-14428-1] c23 N77-17161

HOWARD UNIV., WASHINGTON, D. C.
Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914

A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer
[NASA-CASE-GSC-12081-2] c52 N77-26796

Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-2] c52 N77-27694

HUGHES AIRCRAFT CO., CULVER CITY, CALIF.
Varactor high level mixer
[NASA-CASE-IGS-02171] c09 N69-24324

Thermally operated valve Patent
[NASA-CASE-ILE-00815] c15 N70-35407

Thrust dynamometer Patent
[NASA-CASE-ILE-00702] c14 N70-40203

Solid state chemical source for ammonia beam maser Patent
[NASA-CASE-IGS-01504] c16 N70-41578

Canopus detector including automotive gain control of photomultiplier tube Patent
[NASA-CASE-IHP-03914] c21 N71-10771

Horn feed having overlapping apertures Patent
[NASA-CASE-GSC-10452] c07 N71-12396

Deflective rod switch with elastic support and sealing means Patent
[NASA-CASE-IHP-09808] c09 N71-12518

Guidance and maneuver analyzer. Patent
[NASA-CASE-IHP-09572] c14 N71-15621

Method of making screen by casting Patent
[NASA-CASE-ILE-00953] c15 N71-15966

Fluid flow control valve Patent
[NASA-CASE-ILE-00703] c15 N71-15967

Low noise single aperture multimode monopulse antenna feed system Patent
[NASA-CASE-IHP-01735] c07 N71-22750

Multilayer porous ionizer Patent
[NASA-CASE-IHP-04338] c17 N71-23046

Construction and method of arranging a plurality of ion engines to form a cluster Patent
[NASA-CASE-IHP-02923] c28 N71-23081

Method for fiberizing ceramic materials Patent
[NASA-CASE-IHP-00597] c18 N71-23088

Inorganic thermal control pigment Patent
[NASA-CASE-IHP-02139] c18 N71-24184

Triaxial antenna Patent
[NASA-CASE-XGS-02290] c07 N71-28809

Variable frequency oscillator with temperature compensation Patent
[NASA-CASE-IHP-03916] c09 N71-28810

High efficiency ionizer assembly Patent
[NASA-CASE-IHP-01954] c28 N71-28850

Apparatus for changing the orientation and velocity of a spinning body traversing a path Patent
[NASA-CASE-HQN-00936] c31 N71-29050

Fabrication of controlled-porosity metals Patent
[NASA-CASE-IHP-04339] c17 N71-29137

Ion thruster
[NASA-CASE-LEW-10770-1] c28 N72-22770

Refractory porcelain enamel passive control coating for high temperature alloys
[NASA-CASE-HPS-22324-1] c27 N75-27160

HUGHES AIRCRAFT CO., LOS ANGELES, CALIF.
Power control circuit
[NASA-CASE-IHP-02713] c10 N69-39888

Thermal switch Patent
[NASA-CASE-IHP-00463] c33 N70-36847

Double optic system for ion engine Patent
[NASA-CASE-IHP-02839] c28 N70-41922

Sample collecting impact bit Patent
[NASA-CASE-IHP-01412] c15 N70-42034

Bootstrap unloader Patent
[NASA-CASE-IHP-09768] c09 N71-12516

Difference circuit Patent
[NASA-CASE-IHP-08274] c10 N71-13537

Gas regulator Patent
[NASA-CASE-NPO-10298] c12 N71-17661

A dc-coupled noninverting one-shot Patent
[NASA-CASE-IHP-09450] c10 N71-18723

Phase demodulation system with two phase locked loops Patent
[NASA-CASE-IHP-00777] c10 N71-19469

SOURCE INDEX

JET PROPULSION LAB.,

- High voltage transistor circuit Patent
[NASA-CASE-XNP-06937] c09 N71-19516
- Drift compensation circuit for analog to digital converter Patent
[NASA-CASE-XNP-04780] c08 N71-19687
- System for monitoring the presence of neutrals in a stream of ions Patent
[NASA-CASE-XNP-02592] c24 N71-20518
- Broadband frequency discriminator Patent
[NASA-CASE-NPO-10096] c07 N71-24583
- Flexible, repairable, pottable material for electrical connectors Patent
[NASA-CASE-XGS-05180] c18 N71-25881
- Phase multiplying electronic scanning system Patent
[NASA-CASE-NPO-10302] c10 N71-26142
- Narrow bandwidth video Patent
[NASA-CASE-XMS-06740-1] c07 N71-26579
- Solar panel fabrication Patent
[NASA-CASE-XNP-03413] c03 N71-26726
- Method for removing oxygen impurities from cesium Patent
[NASA-CASE-XNP-04262-2] c17 N71-26773
- Virtual wall slot circularly polarized planar array antenna
[NASA-CASE-NPO-10301] c07 N72-11148
- Conical reflector antenna
[NASA-CASE-NPO-10303] c07 N72-22127
- Injector for use in high voltage isolators for liquid feed lines
[NASA-CASE-NPO-11377] c15 N73-27406
- High efficiency multifrequency feed
[NASA-CASE-GSC-11909] c32 N74-20863
- Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids
[NASA-CASE-MFS-22411-1] c37 N74-21058
- Method and apparatus for optically monitoring the angular position of a rotating mirror
[NASA-CASE-GSC-11353-1] c74 N74-21304
- Apparatus and method for determining the position of a radiant energy source
[NASA-CASE-GSC-12147-1] c35 N77-20410
- Gregorian all-reflective optical system
[NASA-CASE-GSC-12058-1] c74 N77-26942
- Opto-mechanical subsystem with temperature compensation through isothermal design
[NASA-CASE-GSC-12059-1] c35 N77-27366
- Wide power range microwave feedback controller
[NASA-CASE-GSC-12146-1] c33 N78-32340
- System for synchronizing synthesizers of communication systems
[NASA-CASE-GSC-12148-1] c32 N79-20296
- HUGHES RESEARCH LABS., HALLIBU, CALIF.
Thrust dynamometer Patent
[NASA-CASE-XLE-05260] c14 N71-20429
- IIT RESEARCH INST., CHICAGO, ILL.
Spectral method for monitoring atmospheric contamination of inert-gas welding shields Patent
[NASA-CASE-XNP-02039] c15 N71-15871
- Lightweight refractory insulation and method of preparing the same Patent
[NASA-CASE-XNP-05279] c18 N71-16124
- Stabilized zinc oxide coating compositions Patent
[NASA-CASE-XNP-07770-2] c18 N71-26772
- Synthesis of zinc titanate pigment and coatings containing the same
[NASA-CASE-MFS-13532] c18 N72-17532
- Junction range finder
[NASA-CASE-KSC-10108] c14 N73-25461
- Method of preparing zinc orthotitanate pigment
[NASA-CASE-MFS-23345-1] c27 N77-30237
- IMAGE INFORMATION, INC., DANBURY, CONN.
Recorder/processor apparatus
[NASA-CASE-GSC-11553-1] c35 N74-15831
- INCA ENGINEERING CORP., SAN GABRIEL, CALIF.
Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-MFS-21424-1] c34 N74-27730
- INSTITUTE FOR RESEARCH, INC., HOUSTON, TEX.
Method of making a perspiration resistant biopotential electrode
[NASA-CASE-BSC-90153-2] c05 N72-25120
- INSTITUTE OF RESEARCH AND INSTRUMENTATION, HOUSTON, TEX.
Pressed disc type sensing electrodes with ion-screening means Patent
[NASA-CASE-XMS-04212-1] c05 N71-12346
- INTERNATIONAL BUSINESS MACHINES CORP., HOPWELL JUNCTION, N. Y.
Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984
- A method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952
- INTERNATIONAL BUSINESS MACHINES CORP., NEW YORK.
Electrical connector pin with wiping action
[NASA-CASE-XNP-04238] c09 N69-39734
- Tool attachment for spreading loose elements away from work Patent
[NASA-CASE-XNP-02107] c15 N71-10809
- Redundant memory organization Patent
[NASA-CASE-GSC-10564] c10 N71-29135
- INTERNATIONAL HARVESTER CO., SAN DIEGO, CALIF.
Silicide coatings for refractory metals Patent
[NASA-CASE-XLE-10910] c18 N71-29040
- INTERNATIONAL LATEX CORP., DOVER, DEL.
Space suit
[NASA-CASE-MSC-12609-1] c05 N73-32012
- ISOMET CORP., PALISADES PARK, N.J.
Metabolic rate meter and method
[NASA-CASE-MSC-12239-1] c52 N79-21750
- ITT CORP., BUTLEY, N.J.
Time division radio relay synchronizing system using different sync code words for in sync and out of sync conditions Patent
[NASA-CASE-GSC-10373-1] c07 N71-19773
- Tracking receiver Patent
[NASA-CASE-XGS-08679] c10 N71-21473
- Satellite interlace synchronization system
[NASA-CASE-GSC-10390-1] c07 N72-11149
- J
JET PROPULSION LAB., CALIF. INST. OF TECH., PASADENA.
Pressure variable capacitor
[NASA-CASE-XNP-09752] c14 N69-21541
- Rock drill for recovering samples
[NASA-CASE-XNP-07478] c14 N69-21923
- Data compression system
[NASA-CASE-XNP-09785] c08 N69-21928
- Magnetohydrodynamic induction machine
[NASA-CASE-XNP-07481] c25 N69-21929
- Electromechanical actuator
[NASA-CASE-XNP-05975] c15 N69-23185
- Refrigeration apparatus
[NASA-CASE-NPO-10309] c15 N69-23190
- Direct radiation cooling of the collector of linear beam tubes
[NASA-CASE-XNP-09227] c15 N69-24319
- Excitation and detection circuitry for a flux responsive magnetic head
[NASA-CASE-XNP-04183] c09 N69-24329
- Telemetry word forming unit
[NASA-CASE-XNP-09225] c09 N69-24333
- Solid state switch
[NASA-CASE-XNP-09228] c09 N69-27500
- Helienville spring assembly with elastic guides
[NASA-CASE-XNP-09452] c15 N69-27504
- Trifunctional alcohol
[NASA-CASE-NPO-10714] c06 N69-31244
- Plurality of photosensitive cells on a pyramidal base for planetary trackers
[NASA-CASE-XNP-04180] c07 N69-39736
- Coating process
[NASA-CASE-XNP-06508] c18 N69-39895
- Bi-metallic power controlled actuator
[NASA-CASE-XNP-09776] c09 N69-39929
- Piping arrangement through a double chamber structure
[NASA-CASE-XNP-08882] c15 N69-39935
- Micropacked column for a chromatographic system
[NASA-CASE-XNP-04816] c06 N69-39936
- Temperature sensitive capacitor device
[NASA-CASE-XNP-09750] c14 N69-39937
- Thermalionic tantalum emitter doped with oxygen Patent Application
[NASA-CASE-NPO-11138] c03 N70-34646
- Data handling system based on source significance, storage availability and data received from the source Patent Application
[NASA-CASE-XNP-04162-1] c08 N70-34675
- Electro-optical scanning apparatus Patent Application

[NASA-CASE-NPO-11106]	c14 N70-34697	High pressure filter Patent	
Liquid junction and method of fabricating the same Patent Application		[NASA-CASE-XNP-00732]	c28 N70-41447
[NASA-CASE-NPO-10682]	c15 N70-34699	Phase-locked loop with sideband rejecting properties Patent	
Helium refining by superfluidity Patent		[NASA-CASE-XNP-02723]	c07 N70-41680
[NASA-CASE-XNP-00733]	c06 N70-34946	Digital television camera control system Patent	
Means and methods of depositing thin films on substrates Patent		[NASA-CASE-XNP-01472]	c14 N70-41807
[NASA-CASE-XNP-00595]	c15 N70-34967	Antiflutter ball check valve Patent	
Photosensitive device to detect bearing deviation Patent		[NASA-CASE-XNP-01152]	c15 N70-41811
[NASA-CASE-XNP-00438]	c21 N70-35089	Roll attitude star sensor system Patent	
Antenna beam-shaping apparatus Patent		[NASA-CASE-XNP-01307]	c21 N70-41856
[NASA-CASE-XNP-00611]	c09 N70-35219	Process for preparing sterile solid propellants Patent	
Temperature-compensating means for cavity resonator of amplifier Patent		[NASA-CASE-XNP-01749]	c27 N70-41897
[NASA-CASE-XNP-00449]	c14 N70-35220	Solenoid construction Patent	
Parabolic reflector horn feed with spillover correction Patent		[NASA-CASE-XNP-01951]	c09 N70-41929
[NASA-CASE-XNP-00540]	c09 N70-35382	Closed loop ranging system Patent	
Means for visually indicating flight paths of vehicles between the Earth, Venus, and Mercury Patent		[NASA-CASE-XNP-01501]	c21 N70-41930
[NASA-CASE-XNP-00708]	c14 N70-35394	Printed circuit board with bellows rivet connection Patent	
Space vehicle attitude control Patent		[NASA-CASE-XNP-05082]	c15 N70-41960
[NASA-CASE-XNP-00465]	c21 N70-35395	Phase-shift data transmission system having a pseudo-noise SYNC code modulated with the data in a single channel Patent	
Binary to binary-coded-decimal converter Patent		[NASA-CASE-XNP-00911]	c08 N70-41961
[NASA-CASE-XNP-00432]	c08 N70-35423	Baseline stabilization system for ionization detector Patent	
Cassegrainian antenna subreflector flange for suppressing ground noise Patent		[NASA-CASE-XNP-03128]	c10 N70-41991
[NASA-CASE-XNP-00683]	c09 N70-35425	Single or joint amplitude distribution analyzer Patent	
Ionization vacuum gauge Patent		[NASA-CASE-XNP-01383]	c09 N71-10659
[NASA-CASE-XNP-00646]	c14 N70-35666	Dual waveguide mode source having control means for adjusting the relative amplitude of two modes Patent	
Two-fluid magnetohydrodynamic system and method for thermal-electric power conversion Patent		[NASA-CASE-XNP-03134]	c07 N71-10676
[NASA-CASE-XNP-00644]	c03 N70-36803	Method for determining the state of charge of batteries by the use of tracers Patent	
Mechanical coordinate converter Patent		[NASA-CASE-XNP-01464]	c03 N71-10728
[NASA-CASE-XNP-00614]	c14 N70-36907	High pressure regulator valve Patent	
High pressure four-way valve Patent		[NASA-CASE-XNP-00710]	c15 N71-10778
[NASA-CASE-XNP-00214]	c15 N70-36908	Solar battery with interconnecting means for plural cells Patent	
Liquid rocket system Patent		[NASA-CASE-XNP-06506]	c03 N71-11050
[NASA-CASE-XNP-00610]	c28 N70-36910	Sealed battery gas manifold construction Patent	
Radar ranging receiver Patent		[NASA-CASE-XNP-03378]	c03 N71-11051
[NASA-CASE-XNP-00748]	c07 N70-36911	Solar cell submodule Patent	
Attitude control for spacecraft Patent		[NASA-CASE-XNP-05821]	c03 N71-11056
[NASA-CASE-XNP-00294]	c21 N70-36938	Reflectometer for receiver input impedance match measurement Patent	
Elastic universal joint Patent		[NASA-CASE-XNP-10843]	c07 N71-11267
[NASA-CASE-XNP-00416]	c15 N70-36947	Means for generating a sync signal in an FM communication system Patent	
Apparatus and method for control of a solid fueled rocket vehicle Patent		[NASA-CASE-XNP-10830]	c07 N71-11281
[NASA-CASE-XNP-00217]	c28 N70-38181	Multi-feed cone Cassegrain antenna Patent	
Expulsion bladder-equipped storage tank structure Patent		[NASA-CASE-NPO-10539]	c07 N71-11285
[NASA-CASE-XNP-00612]	c11 N70-38182	Thermionic diode switch Patent	
High-voltage cable Patent		[NASA-CASE-NPO-10404]	c03 N71-12255
[NASA-CASE-XNP-00738]	c09 N70-38201	Anti-backlash circuit for hydraulic drive system Patent	
Uniball separator for rockets Patent		[NASA-CASE-XNP-01020]	c03 N71-12260
[NASA-CASE-XNP-00425]	c11 N70-38202	Binary number sorter Patent	
Multiple Belleville spring assembly Patent		[NASA-CASE-NPO-10112]	c08 N71-12502
[NASA-CASE-XNP-00840]	c15 N70-38225	Linear three-tap feedback shift register Patent	
Ignition system for monopropellant combustion devices Patent		[NASA-CASE-NPO-10351]	c08 N71-12503
[NASA-CASE-XNP-00249]	c28 N70-38249	Binary sequence detector Patent	
Pressure regulating system Patent		[NASA-CASE-XNP-05415]	c08 N71-12505
[NASA-CASE-XNP-00450]	c15 N70-38603	Data compression system with a minimum time delay unit Patent	
Slit regulated gas journal bearing Patent		[NASA-CASE-XNP-08832]	c08 N71-12506
[NASA-CASE-XNP-00476]	c15 N70-38620	Magnetic counter Patent	
Steerable solid propellant rocket motor Patent		[NASA-CASE-XNP-08836]	c09 N71-12515
[NASA-CASE-XNP-00234]	c28 N70-38645	Operational integrator Patent	
Space simulator Patent		[NASA-CASE-NPO-10230]	c09 N71-12520
[NASA-CASE-XNP-00459]	c11 N70-38675	Starting circuit for vapor lamps and the like Patent	
Ejection unit Patent		[NASA-CASE-XNP-01058]	c09 N71-12540
[NASA-CASE-XNP-00676]	c15 N70-38996	Matched thermistors for microwave power meters Patent	
Time-division multiplexer Patent		[NASA-CASE-NPO-10348]	c10 N71-12554
[NASA-CASE-XNP-00431]	c09 N70-38998	Micro current measuring device using plural logarithmic response heated filamentary type diodes Patent	
Trajectory-correction propulsion system Patent		[NASA-CASE-XNP-00384]	c09 N71-13530
[NASA-CASE-XNP-01104]	c28 N70-39931	Automatic thermal switch Patent	
Electrically-operated rotary shutter Patent		[NASA-CASE-XNP-03796]	c23 N71-15467
[NASA-CASE-XNP-00637]	c14 N70-40273	Photoelectric energy spectrometer Patent	
Zero gravity starting means for liquid propellant motors Patent		[NASA-CASE-XNP-04161]	c14 N71-15599
[NASA-CASE-XNP-01390]	c28 N70-41275	Anti-glare improvement for optical imaging systems Patent	
Parallel motion suspension device Patent			
[NASA-CASE-XNP-01567]	c15 N70-41310		
Ignition means for monopropellant Patent			
[NASA-CASE-XNP-00876]	c28 N70-41311		
Reinforcing means for diaphragms Patent			
[NASA-CASE-XNP-01962]	c32 N70-41370		

SOURCE INDEX

JET PROPULSION LAB., CONTD

[NASA-CASE-NPO-10337]	c14 N71-15604	Processing for producing a sterilized instrument Patent	
Fluid flow restrictor Patent		[NASA-CASE-XNP-09763]	c14 N71-20461
[NASA-CASE-NPO-10117]	c15 N71-15608	Signal-to-noise ratio estimating by taking ratio of mean and standard deviation of integrated signal samples Patent	
High temperature lens construction Patent		[NASA-CASE-XNP-05254]	c07 N71-20791
[NASA-CASE-XNP-04111]	c14 N71-15622	Elimination of frequency shift in a multiplex communication system Patent	
Solder flux which leaves corrosion-resistant coating Patent		[NASA-CASE-XNP-01306]	c07 N71-20814
[NASA-CASE-XNP-03459-2]	c18 N71-15688	High power-high voltage waterload Patent	
Intermittent type silica gel adsorption refrigerator Patent		[NASA-CASE-XNP-05381]	c09 N71-20842
[NASA-CASE-XNP-00920]	c15 N71-15906	Coaxial cable connector Patent	
Dual mode horn antenna Patent		[NASA-CASE-XNP-04732]	c09 N71-20851
[NASA-CASE-XNP-01057]	c07 N71-15907	Soldering with solder flux which leaves corrosion resistant coating Patent	
Means for controlling rupture of shock tube diaphragms Patent		[NASA-CASE-XNP-03459]	c15 N71-21078
[NASA-CASE-XAC-00731]	c11 N71-15960	Miniature stress transducer Patent	
Insertion loss measuring apparatus having transformer means connected across a pair of bolometers Patent		[NASA-CASE-XNP-02983]	c14 N71-21091
[NASA-CASE-XNP-01193]	c10 N71-16057	Holder for crystal resonators Patent	
Polarimeter for transient measurement Patent		[NASA-CASE-XNP-03637]	c15 N71-21311
[NASA-CASE-XNP-08883]	c23 N71-16101	Correlation function apparatus Patent	
Flexible composite membrane Patent		[NASA-CASE-XNP-00746]	c07 N71-21476
[NASA-CASE-XNP-08837]	c18 N71-16210	Split nut separation system Patent	
Mount for thermal control system Patent		[NASA-CASE-XNP-06914]	c15 N71-21489
[NASA-CASE-NPO-10138]	c33 N71-16357	Light position locating system Patent	
Optical characteristics measuring apparatus Patent		[NASA-CASE-XNP-01059]	c23 N71-21821
[NASA-CASE-XNP-08840]	c23 N71-16365	Electron bombardment ion engine Patent	
Parallel plate viscometer Patent		[NASA-CASE-XNP-04124]	c28 N71-21822
[NASA-CASE-XNP-09462]	c14 N71-17584	Data compressor Patent	
Means and method of measuring viscoelastic strain Patent		[NASA-CASE-XNP-04067]	c08 N71-22707
[NASA-CASE-XNP-01153]	c32 N71-17645	Error correcting method and apparatus Patent	
Interferometer direction sensor Patent		[NASA-CASE-XNP-02748]	c08 N71-22749
[NASA-CASE-NPO-10320]	c14 N71-17655	Counter and shift register Patent	
Interferometer servo system Patent		[NASA-CASE-XNP-01753]	c08 N71-22897
[NASA-CASE-NPO-10300]	c14 N71-17662	Friction measuring apparatus Patent	
Electrical spot terminal assembly Patent		[NASA-CASE-XNP-08680]	c14 N71-22995
[NASA-CASE-NPO-10034]	c15 N71-17685	Hybrid lubrication system and bearing Patent	
Sealed separable connection Patent		[NASA-CASE-XNP-01641]	c15 N71-22997
[NASA-CASE-NPO-10064]	c15 N71-17693	Filler valve Patent	
Incremental motion drive system Patent		[NASA-CASE-XNP-01747]	c15 N71-23024
[NASA-CASE-XNP-08897]	c15 N71-17694	Refrigeration apparatus Patent	
Microbalance including crystal oscillators for measuring contaminants in a gas system Patent		[NASA-CASE-XNP-08877]	c15 N71-23025
[NASA-CASE-NPO-10144]	c14 N71-17701	Reduced bandwidth video communication system utilizing sampling techniques Patent	
Apparatus and method for protecting a photographic device Patent		[NASA-CASE-XNP-02791]	c07 N71-23026
[NASA-CASE-NPO-10174]	c14 N71-18465	Model launcher for wind tunnels Patent	
Ranging system Patent		[NASA-CASE-XNP-03578]	c11 N71-23030
[NASA-CASE-NPO-10066]	c09 N71-18598	Drive circuit utilizing two cores Patent	
High impact pressure regulator Patent		[NASA-CASE-XNP-01318]	c10 N71-23033
[NASA-CASE-NPO-10175]	c14 N71-18625	Solar vane actuator Patent	
Magnetic core current steering commutator Patent		[NASA-CASE-XNP-05535]	c14 N71-23040
[NASA-CASE-NPO-10201]	c08 N71-18694	Time of flight mass spectrometer with feedback means from the detector to the low source and a specific counter Patent	
Method of using photovoltaic cell using poly-N-vinylcarbazole complex Patent		[NASA-CASE-XNP-01056]	c14 N71-23041
[NASA-CASE-NPO-10373]	c03 N71-18698	Connector internal force gauge Patent	
A dc-coupled noninverting one-shot Patent		[NASA-CASE-XNP-03918]	c14 N71-23087
[NASA-CASE-XNP-09450]	c10 N71-18723	Circulator having quarter wavelength resonant post and parametric amplifier circuits utilizing the same Patent	
Automatic fault correction system for parallel signal channels Patent		[NASA-CASE-XNP-02140]	c09 N71-23097
[NASA-CASE-XNP-03263]	c09 N71-18843	Method of resolving clock synchronization error and means therefor Patent	
Data compression processor Patent		[NASA-CASE-XNP-08875]	c10 N71-23099
[NASA-CASE-NPO-10068]	c08 N71-19288	Impact testing machine Patent	
Tape guidance system and apparatus for the provision thereof Patent		[NASA-CASE-XNP-04817]	c14 N71-23225
[NASA-CASE-XNP-09453]	c08 N71-19420	Zeta potential flowmeter Patent	
High voltage transistor circuit Patent		[NASA-CASE-XNP-06509]	c14 N71-23226
[NASA-CASE-XNP-06937]	c09 N71-19516	Comparator for the comparison of two binary numbers Patent	
Solar cell matrix Patent		[NASA-CASE-XNP-04819]	c08 N71-23295
[NASA-CASE-NPO-10821]	c03 N71-19545	Decontamination of petroleum products Patent	
Electrical switching device Patent		[NASA-CASE-XNP-03835]	c06 N71-23499
[NASA-CASE-NPO-10037]	c09 N71-19610	Dicyanoacetylene polymers Patent	
Drift compensation circuit for analog to digital converter Patent		[NASA-CASE-XNP-03250]	c06 N71-23500
[NASA-CASE-XNP-04780]	c08 N71-19687	Indexing microwave switch Patent	
Roll-up solar array Patent		[NASA-CASE-XNP-06507]	c09 N71-23548
[NASA-CASE-NPO-10188]	c03 N71-20273	Millimeter wave radiometer for radio astronomy Patent	
Method and device for determining battery state of charge Patent		[NASA-CASE-XNP-09832]	c30 N71-23723
[NASA-CASE-NPO-10194]	c03 N71-20407	Radiant energy intensity measurement system Patent	
Soil particles separator, collector and viewer Patent		[NASA-CASE-XNP-06510]	c14 N71-23797
[NASA-CASE-XNP-09770]	c15 N71-20440	High speed phase detector Patent	
Transmission line thermal short Patent		[NASA-CASE-XNP-01306-2]	c09 N71-24596
[NASA-CASE-XNP-09775]	c09 N71-20445	Apparatus for testing polymeric materials Patent	
Synchronous servo loop control system Patent		[NASA-CASE-XNP-09699]	c06 N71-24607
[NASA-CASE-XNP-03744]	c10 N71-20448	Digital synchronizer Patent	
		[NASA-CASE-NPO-0851]	c07 N71-24613

Signal processing apparatus for multiplex transmission Patent		Analog signal integration and reconstruction system Patent	
[NASA-CASE-NPO-10388]	c07 N71-24622	[NASA-CASE-NPO-10344]	c10 N71-26544
Self-testing and repairing computer Patent		Rapid sync acquisition system Patent	
[NASA-CASE-NPO-10567]	c08 N71-24633	[NASA-CASE-NPO-10214]	c10 N71-26577
Serial digital decoder Patent		Cryogenic cooling system Patent	
[NASA-CASE-NPO-10150]	c08 N71-24650	[NASA-CASE-NPO-10467]	c23 N71-26654
Detenting servomotor Patent		Vacuum evaporator with electromagnetic ion steering Patent	
[NASA-CASE-NXP-06936]	c15 N71-24695	[NASA-CASE-NPO-10331]	c09 N71-26701
Reversible motion drive system Patent		Automated fluid chemical analyzer Patent	
[NASA-CASE-NPO-10173]	c15 N71-24696	[NASA-CASE-NXP-09451]	c06 N71-26754
Decoder system Patent		Material handling device Patent	
[NASA-CASE-NPO-10118]	c07 N71-24741	[NASA-CASE-NXP-09770-3]	c11 N71-27036
Television signal processing system Patent		Pressure seal Patent	
[NASA-CASE-NPO-10140]	c07 N71-24742	[NASA-CASE-NPO-10796]	c15 N71-27068
Switching circuit Patent		Multiducted electromagnetic pump Patent	
[NASA-CASE-NXP-06505]	c10 N71-24799	[NASA-CASE-NPO-10755]	c15 N71-27084
Magnetic power switch Patent		Peak acceleration limiter for vibrational tester Patent	
[NASA-CASE-NPO-10242]	c09 N71-24803	[NASA-CASE-NPO-10556]	c14 N71-27185
Remodulator filter Patent		Thin film capacitive bolometer and temperature sensor Patent	
[NASA-CASE-NPO-10198]	c09 N71-24806	[NASA-CASE-NPO-10607]	c09 N71-27232
Broadband microwave waveguide window Patent		Black body cavity radiometer Patent	
[NASA-CASE-NXP-08880]	c09 N71-24808	[NASA-CASE-NPO-10810]	c14 N71-27323
Cavity radiometer Patent		Video signal enhancement system with dynamic range compression and modulation index expansion Patent	
[NASA-CASE-NXP-08961]	c14 N71-24809	[NASA-CASE-NPO-10343]	c07 N71-27341
High-gain, broadband traveling wave maser Patent		Force-balanced, throttle valve Patent	
[NASA-CASE-NPO-10548]	c16 N71-24831	[NASA-CASE-NPO-10808]	c15 N71-27432
Fluid containers and resealable septum therefor Patent		Cavity emitter for thermionic converter Patent	
[NASA-CASE-NPO-10123]	c15 N71-24835	[NASA-CASE-NPO-10412]	c09 N71-28421
Temperature telemetric transmitter Patent		Frictionless universal joint Patent	
[NASA-CASE-NPO-10649]	c07 N71-24840	[NASA-CASE-NPO-10646]	c15 N71-28467
Tuning arrangement for an electron discharge device or the like Patent		Epoxy-aziridine polymer product Patent	
[NASA-CASE-NXP-09771]	c09 N71-24841	[NASA-CASE-NPO-10701]	c06 N71-28620
Noise limiter Patent		Fluid impervious barrier including liquid metal alloy and method of making same Patent	
[NASA-CASE-NPO-10169]	c10 N71-24844	[NASA-CASE-NXP-08881]	c17 N71-28747
Noninterruptable digital counting system Patent		Wind tunnel microphone structure Patent	
[NASA-CASE-NXP-09759]	c08 N71-24891	[NASA-CASE-NXP-00250]	c11 N71-28779
Drive circuit for minimizing power consumption in inductive load Patent		Trialkyl-dihalotantalum and niobium compounds Patent	
[NASA-CASE-NPO-10716]	c09 N71-24892	[NASA-CASE-NXP-04023]	c06 N71-28808
Space simulator Patent		Digital memory sense amplifying means Patent	
[NASA-CASE-NPO-10141]	c11 N71-24964	[NASA-CASE-NXP-01012]	c08 N71-28925
Process for reducing secondary electron emission Patent		Digital filter for reducing sampling jitter in digital control systems Patent	
[NASA-CASE-NXP-09469]	c24 N71-25555	[NASA-CASE-NPO-11088]	c08 N71-29034
Minimal logic block encoder Patent		Method and apparatus for aligning a laser beam projector Patent	
[NASA-CASE-NPO-10595]	c10 N71-25917	[NASA-CASE-NPO-11087]	c23 N71-29125
Novel polycarboxylic prepolymeric materials and polymers thereof Patent		Rubber composition for use with hydrazine Patent Application	
[NASA-CASE-NPO-10596]	c06 N71-25929	[NASA-CASE-NPO-11433]	c18 N71-31140
Current steering switch Patent		Rotable accurate reflector system for telescopes Patent	
[NASA-CASE-NXP-08567]	c09 N71-26000	[NASA-CASE-NPO-10468]	c23 N71-33229
Dual polarity full wave dc motor drive Patent		Encoder/decoder system for a rapidly synchronizable binary code Patent	
[NASA-CASE-NXP-07477]	c09 N71-26092	[NASA-CASE-NPO-10342]	c10 N71-33407
High impact antenna Patent		High power microwave power divider Patent	
[NASA-CASE-NPO-10231]	c07 N71-26101	[NASA-CASE-NPO-11031]	c07 N71-33606
Video communication system and apparatus Patent		A dc servosystem including an ac motor Patent	
[NASA-CASE-NXP-06611]	c07 N71-26102	[NASA-CASE-NPO-10700]	c07 N71-33613
Parallel generation of the check bits of a PN sequence Patent		Solar cell matrix	
[NASA-CASE-NXP-04623]	c10 N71-26103	[NASA-CASE-NPO-11190]	c03 N71-34044
Phase multiplying electronic scanning system Patent		Manually actuated heat pump	
[NASA-CASE-NPO-10302]	c10 N71-26142	[NASA-CASE-NPO-10677]	c05 N72-11084
Electron beam tube containing a multiple cathode array employing indexing means for cathode substitution Patent		Virtual wall slot circularly polarized planar array antenna	
[NASA-CASE-NPO-10625]	c09 N71-26182	[NASA-CASE-NPO-10301]	c07 N72-11148
Fluid phase analyzer Patent		System for controlling the operation of a variable signal device	
[NASA-CASE-NPO-10691]	c14 N71-26199	[NASA-CASE-NPO-11064]	c07 N72-11150
Variable frequency nuclear magnetic resonance spectrometer Patent		Method and apparatus for data compression by a decreasing slope threshold test	
[NASA-CASE-NXP-09830]	c14 N71-26266	[NASA-CASE-NPO-10769]	c08 N72-11171
Time synchronization system utilizing moon reflected coded signals Patent		Apparatus for remote measurement of displacement of marks on a specimen undergoing a tensile test	
[NASA-CASE-NPO-10143]	c10 N71-26326	[NASA-CASE-NPO-10778]	c14 N72-11364
Broadband stable power multiplier Patent		Vibration isolation system using compression springs	
[NASA-CASE-NXP-10854]	c10 N71-26331	[NASA-CASE-NPO-11012]	c15 N72-11391
Cascaded complementary pair broadband transistor amplifiers Patent		Feed system for an ion thruster	
[NASA-CASE-NPO-10003]	c10 N71-26415	[NASA-CASE-NPO-10737]	c28 N72-11709
Digital memory in which the driving of each word location is controlled by a switch core Patent			
[NASA-CASE-NXP-01466]	c10 N71-26434		
Conically shaped cavity radiometer with a dual purpose cone winding Patent			
[NASA-CASE-NXP-09701]	c14 N71-26475		

SOURCE INDEX

JET PROPULSION LAB., CONTD

Thermostatic actuator [NASA-CASE-NPO-10637]	c15 N72-12409	Bipropellant injector [NASA-CASE-NXP-09461]	c28 N72-23809
High voltage transistor amplifier with constant current load [NASA-CASE-NPO-11023]	c09 N72-17155	Solid propellant rocket motor nozzle [NASA-CASE-NPO-11458]	c28 N72-23810
Reference voltage switching unit [NASA-CASE-NPO-11253]	c09 N72-17157	Analysis of hydrogen-deuterium mixtures [NASA-CASE-NPO-11322]	c06 N72-25146
Valving device for automatic refilling in cryogenic liquid systems [NASA-CASE-NPO-11177]	c15 N72-17453	Flexible computer accessed telemetry [NASA-CASE-NPO-11358]	c07 N72-25172
Expansible support means [NASA-CASE-NPO-11059]	c15 N72-17454	Multi-purpose antenna employing dish reflector with plural coaxial horn feeds [NASA-CASE-NPO-11264]	c07 N72-25174
Breakaway connector [NASA-CASE-NPO-11140]	c15 N72-17455	Communications link for computers [NASA-CASE-NPO-11161]	c08 N72-25207
Modular encoder [NASA-CASE-NPO-10629]	c08 N72-18184	Method and apparatus for frequency-division multiplex communications by digital phase shift of carrier [NASA-CASE-NPO-11338]	c08 N72-25208
Transition tracking bit synchronization system [NASA-CASE-NPO-10844]	c07 N72-20140	Binary coded sequential acquisition ranging system [NASA-CASE-NPO-11194]	c08 N72-25209
Data compression system [NASA-CASE-NPO-11243]	c07 N72-20154	MOD 2 sequential function generator for multibit binary sequence [NASA-CASE-NPO-10636]	c08 N72-25210
Digital quasi-exponential function generator [NASA-CASE-NPO-11130]	c08 N72-20176	Digital video display system using cathode ray tube [NASA-CASE-NPO-11342]	c09 N72-25248
Method and apparatus for high resolution spectral analysis [NASA-CASE-NPO-10748]	c08 N72-20177	Inverter oscillator with voltage feedback [NASA-CASE-NPO-10760]	c09 N72-25254
Flow rate switch [NASA-CASE-NPO-10722]	c09 N72-20199	Thermal motor [NASA-CASE-NPO-11283]	c09 N72-25260
Electrical connector [NASA-CASE-NPO-10694]	c09 N72-20200	Two phase flow system with discrete impinging two-phase jets [NASA-CASE-NPO-11556]	c12 N72-25292
Wide band doubler and sine wave quadrature generator [NASA-CASE-NPO-11133]	c10 N72-20223	Atmospheric sampling devices [NASA-CASE-NPO-11373]	c13 N72-25323
Signal phase estimator [NASA-CASE-NPO-11203]	c10 N72-20224	Light sensor [NASA-CASE-NPO-11311]	c14 N72-25414
Optimal control system for an electric motor driven vehicle [NASA-CASE-NPO-11210]	c11 N72-20244	Quick disconnect coupling [NASA-CASE-NPO-11202]	c15 N72-25450
Impact energy absorbing system utilizing fractureable material [NASA-CASE-NPO-10671]	c15 N72-20443	Coaxial injector for reaction motors [NASA-CASE-NPO-11095]	c15 N72-25455
Torsional disconnect unit [NASA-CASE-NPO-10704]	c15 N72-20445	Ball screw linear actuator [NASA-CASE-NPO-11222]	c15 N72-25456
Solid propellant rocket motor [NASA-CASE-NXP-03282]	c28 N72-20758	Helium refrigerator and method for decontaminating the refrigerator [NASA-CASE-NPO-10634]	c23 N72-25619
Shell side liquid metal boiler [NASA-CASE-NPO-10831]	c33 N72-20915	Uninsulated in-core thermionic diode [NASA-CASE-NPO-10542]	c09 N72-27228
Method and apparatus for mapping planets [NASA-CASE-NPO-11001]	c07 N72-21118	Audio frequency marker system [NASA-CASE-NPO-11147]	c14 N72-27408
Current steering commutator [NASA-CASE-NPO-10743]	c08 N72-21199	Light direction sensor [NASA-CASE-NPO-11201]	c14 N72-27409
Automated equipotential plotter [NASA-CASE-NPO-11134]	c09 N72-21246	Adjustable support [NASA-CASE-NPO-10721]	c15 N72-27484
Pressure transducer [NASA-CASE-NPO-10832]	c14 N72-21405	Method for controlling vapor content of a gas [NASA-CASE-NPO-10633]	c03 N72-28025
Penetrometer [NASA-CASE-NPO-11103]	c14 N72-21406	Maser for frequencies in the 7-20 GHz range [NASA-CASE-NPO-11437]	c16 N72-28521
Positioning mechanism [NASA-CASE-NPO-10679]	c15 N72-21462	Thin film temperature sensor and method of making same [NASA-CASE-NPO-11775]	c26 N72-28761
Solid state matrices [NASA-CASE-NPO-10591]	c03 N72-22041	Circularly polarized antenna [NASA-CASE-NPO-10214]	c09 N72-31235
Solar cell panels with light transmitting plate [NASA-CASE-NPO-10747]	c03 N72-22042	Singly-curved reflector for use in high-gain antennas [NASA-CASE-NPO-11361]	c07 N72-32169
Data multiplexer using tri switching configuration [NASA-CASE-NPO-11333]	c08 N72-22162	Digital slope threshold data compressor [NASA-CASE-NPO-11630]	c08 N72-33172
System for quantizing graphic displays [NASA-CASE-NPO-10745]	c08 N72-22164	Continuously variable voltage controlled phase shifter [NASA-CASE-NPO-11129]	c09 N72-33204
Digital function generator [NASA-CASE-NPO-11104]	c08 N72-22165	Pseudonoise sequence generators with three tap linear feedback shift registers [NASA-CASE-NPO-11406]	c08 N73-12175
Analog-to-digital converter analyzing system [NASA-CASE-NPO-10560]	c08 N72-22166	Versatile arithmetic unit for high speed sequential decoder [NASA-CASE-NPO-11371]	c08 N73-12177
Feedback shift register with states decomposed into cycles of equal length [NASA-CASE-NPO-11082]	c08 N72-22167	Dual frequency microwave reflex feed [NASA-CASE-NPO-13091-1]	c09 N73-12214
Self-obturing, gas operated launcher [NASA-CASE-NPO-11013]	c11 N72-22247	Audio system with means for reducing noise effects [NASA-CASE-NPO-11631]	c10 N73-12244
Optical binocular scanning apparatus [NASA-CASE-NPO-11002]	c14 N72-22441	Interferometer-polarimeter [NASA-CASE-NPO-11239]	c14 N73-12446
Ionene membrane separator [NASA-CASE-NPO-11091]	c18 N72-22567	Irradiance measuring device [NASA-CASE-NPO-11493]	c14 N73-12447
Deployable solar cell array [NASA-CASE-NPO-10883]	c31 N72-22874	Program for computer aided reliability estimation [NASA-CASE-NPO-13086-1]	c15 N73-12495
Thermal to electrical power conversion system with solid-state switches with Seebeck effect compensation [NASA-CASE-NPO-11388]	c03 N72-23048	Apparatus for deriving synchronizing pulses from pulses in a single channel PCM communications system	
Optical frequency waveguide and transmission system [NASA-CASE-HQN-10541-3]	c23 N72-23695		

[NASA-CASE-NPO-11302-1]	c07 N73-13149	generator	
Rotary vane attenuator wherein rotor has orthogonally disposed resistive and dielectric cards		[NASA-CASE-XNP-03623]	c09 N73-28084
[NASA-CASE-NPO-11418-1]	c14 N73-13420	Apparatus and method for measuring the Seebeck coefficient and resistivity of materials	
Gas flow control device		[NASA-CASE-NPO-11749]	c14 N73-28486
[NASA-CASE-NPO-11479]	c15 N73-13462	Dual purpose optical instrument capable of simultaneously acting as spectrometer and diffractometer	
Electrolytic gas operated actuator		[NASA-CASE-XNP-05231]	c14 N73-28491
[NASA-CASE-NPO-11369]	c15 N73-13467	Continuous magnetic flux pump	
Dual purpose momentum wheels for spacecraft with magnetic recording		[NASA-CASE-XNP-01187]	c15 N73-28516
[NASA-CASE-NPO-11481]	c21 N73-13644	Preparation of alkali metal dispersions	
Multiple reflection conical microwave antenna		[NASA-CASE-XNP-08876]	c17 N73-28573
[NASA-CASE-NPO-11661]	c07 N73-14130	Superconductive magnetic-field-trapping device	
Cyclically operable optical shutter		[NASA-CASE-XNP-01185]	c26 N73-28710
[NASA-CASE-NPO-10758]	c14 N73-14427	Automatic carrier acquisition system	
Heat detection and compositions and devices therefor		[NASA-CASE-NPO-11628-1]	c07 N73-30113
[NASA-CASE-NPO-10764-1]	c14 N73-14426	Ferrofluidic solenoid	
Parallel-plate viscometer with double diaphragm suspension		[NASA-CASE-NPO-11738-1]	c09 N73-30185
[NASA-CASE-NPO-11387]	c14 N73-14429	Silent emergency alarm system for schools and the like	
Rotary actuator		[NASA-CASE-NPO-11307-1]	c10 N73-30205
[NASA-CASE-NPO-10680]	c31 N73-14855	RF-source resistance meters	
Magnetically actuated tuning method for Gunn oscillators		[NASA-CASE-NPO-11291-1]	c14 N73-30388
[NASA-CASE-NPO-12106]	c09 N73-15235	Event sequence detector	
Multichannel telemetry system		[NASA-CASE-NPO-11703-1]	c10 N73-32144
[NASA-CASE-NPO-11572]	c07 N73-16121	Soil penetrometer	
Data-aided carrier tracking loops		[NASA-CASE-XNP-05530]	c14 N73-32321
[NASA-CASE-NPO-11282]	c10 N73-16205	Quadrupole mass filter with means to generate a noise spectrum exclusive of the resonant frequency of the desired ions to deflect stable ions	
Stacked solar cell arrays		[NASA-CASE-XNP-04231]	c14 N73-32325
[NASA-CASE-NPO-11771]	c03 N73-20040	Magnetic-flux pump	
A m-ary linear feedback shift register with binary logic		[NASA-CASE-XNP-01188]	c15 N73-32361
[NASA-CASE-NPO-11868]	c10 N73-20254	Burrowing apparatus	
Apparatus for recovering matter adhered to a host surface		[NASA-CASE-XNP-07169]	c15 N73-32362
[NASA-CASE-NPO-11213]	c15 N73-20514	Electrostatically controlled heat shutter	
Scan converting video tape recorder		[NASA-CASE-NPO-11942-1]	c33 N73-32818
[NASA-CASE-NPO-10166-1]	c07 N73-22076	Method and apparatus for a single channel digital communications system	
Collapsible structure for an antenna reflector		[NASA-CASE-NPO-11302-2]	c32 N74-10132
[NASA-CASE-NPO-11751]	c07 N73-24176	Controlled oscillator system with a time dependent output frequency	
Pump for delivering heated fluids		[NASA-CASE-NPO-11962-1]	c33 N74-10194
[NASA-CASE-NPO-11417]	c15 N73-24513	Low loss dichroic plate	
Ion thruster with a combination keeper electrode and electron baffle		[NASA-CASE-NPO-13171-1]	c32 N74-11000
[NASA-CASE-NPO-11880]	c28 N73-24783	Image data rate converter having a drum with a fixed head and a rotatable head	
Solid propellant rocket motor		[NASA-CASE-NPO-11659-1]	c35 N74-11283
[NASA-CASE-NPO-11559]	c28 N73-24784	Monitoring atmospheric pollutants with a heterodyne radiometer transmitter-receiver	
Code regenerative clean-up loop transponder for a mu-type ranging system		[NASA-CASE-NPO-11919-1]	c35 N74-11284
[NASA-CASE-NPO-11707]	c07 N73-25161	Digital second-order phase-locked loop	
Numerical computer peripheral interactive device with manual controls		[NASA-CASE-NPO-11905-1]	c33 N74-12887
[NASA-CASE-NPO-11497]	c08 N73-25206	Automatic vehicle location system	
Radiant source tracker independent of nonconstant irradiance		[NASA-CASE-NPO-11850-1]	c32 N74-12912
[NASA-CASE-NPO-11686]	c14 N73-25462	Thermomagnetic recording and magneto-optic playback system having constant intensity laser beam control	
Two carrier communication system with single transmitter		[NASA-CASE-NPO-11317-2]	c36 N74-13205
[NASA-CASE-NPO-11548]	c07 N73-26118	Use of thin film light detector	
High pulse rate high resolution optical radar system		[NASA-CASE-NPO-11432-2]	c35 N74-15090
[NASA-CASE-NPO-11426]	c07 N73-26119	Temperature compensated digital inertial sensor	
Counting digital filters		[NASA-CASE-NPO-13044-1]	c35 N74-15094
[NASA-CASE-NPO-11821-1]	c08 N73-26175	Compact hydrogenator	
Automated attendance accounting system		[NASA-CASE-NPO-11682-1]	c35 N74-15127
[NASA-CASE-NPO-11456]	c08 N73-26176	Short range laser obstacle detector	
Low phase noise digital frequency divider		[NASA-CASE-NPO-11856-1]	c36 N74-15145
[NASA-CASE-NPO-11569]	c10 N73-26229	System for stabilizing cable phase delay utilizing a coaxial cable under pressure	
Vehicle for use in planetary exploration		[NASA-CASE-NPO-13138-1]	c33 N74-17927
[NASA-CASE-NPO-11366]	c11 N73-26238	Storage battery comprising negative plates of a wedge shaped configuration	
Temperature control system with a pulse width modulated bridge		[NASA-CASE-NPO-11806-1]	c44 N74-19693
[NASA-CASE-NPO-11304]	c14 N73-26430	Gated compressor, distortionless signal limiter	
Disconnect unit		[NASA-CASE-NPO-11820-1]	c32 N74-19788
[NASA-CASE-NPO-11330]	c33 N73-26958	Apparatus for scanning the surface of a cylindrical body	
Filter for third order phase locked loops		[NASA-CASE-NPO-11861-1]	c36 N74-20009
[NASA-CASE-NPO-11941-1]	c10 N73-27171	Decision feedback loop for tracking a polyphase modulated carrier	
Receiver with an improved phase lock loop in a multichannel telemetry system with suppressed carrier		[NASA-CASE-NPO-13103-1]	c32 N74-20811
[NASA-CASE-NPO-11593-1]	c07 N73-28012	Optically actuated two position mechanical mover	
Analog-to-digital converter		[NASA-CASE-NPO-13105-1]	c37 N74-21060
[NASA-CASE-XNP-00477]	c08 N73-28045	Thin film gauge	
Pseudonoise (PN) synchronization of data system with derivation of clock frequency from received signal for clocking receiver PN		[NASA-CASE-NPO-10617-1]	c35 N74-22095
		High isolation RF signal selection switches	
		[NASA-CASE-NPO-13081-1]	c33 N74-22814

Single reflector interference spectrometer and drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040

Scanning nozzle plating system
[NASA-CASE-NPO-11758-1] c31 N74-23065

Rock sampling
[NASA-CASE-NXP-10007-1] c46 N74-23068

Rock sampling
[NASA-CASE-NXP-09755] c46 N74-23069

Miniature multichannel biotelemeter system
[NASA-CASE-NPO-13065-1] c52 N74-26625

Dispensing targets for ion beam particle generators
[NASA-CASE-NPO-13112-1] c73 N74-26767

Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425

Coherent receiver employing nonlinear coherence detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523

Digital servo control of random sound test excitation
[NASA-CASE-NPO-11623-1] c71 N74-31148

Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917

Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918

Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209

Geneva mechanism
[NASA-CASE-NPO-13281-1] c37 N75-13266

Method of producing a storage bulb for an atomic hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029

Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050

Simultaneous acquisition of tracking data from two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854

Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573

System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519

Motor run-up system
[NASA-CASE-NPO-13374-1] c33 N75-19524

Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627

Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628

Deep trap, laser activated image converting system
[NASA-CASE-NPO-13131-1] c36 N75-19652

Multitarget sequential sputtering apparatus
[NASA-CASE-NPO-13345-1] c37 N75-19684

Wide angle sun sensor
[NASA-CASE-NPO-13327-1] c35 N75-23910

Material suspension within an acoustically excited resonant chamber
[NASA-CASE-NPO-13263-1] c12 N75-24774

Heat operated cryogenic electrical generator
[NASA-CASE-NPO-13303-1] c20 N75-24837

System for interference signal nulling by polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982

Heat detection and compositions and devices therefor
[NASA-CASE-NPO-10764-2] c35 N75-25122

Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123

Vehicle locating system utilizing AM broadcasting station carriers
[NASA-CASE-NPO-13217-1] c32 N75-26194

Asynchronous, multiplexing, single line transmission and recovery data system
[NASA-CASE-NPO-13321-1] c32 N75-26195

Fluorescence detector for monitoring atmospheric pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585

Cooperative multiaxis sensor for teleoperation of article manipulating apparatus
[NASA-CASE-NPO-13386-1] c54 N75-27758

Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27761

Refrigerated coaxial coupling
[NASA-CASE-NPO-13504-1] c33 N75-30430

Electric power generation system directory from laser power
[NASA-CASE-NPO-13308-1] c36 N75-30524

Subminiature insertable force transducer
[NASA-CASE-NPO-13423-1] c33 N75-31329

Symmetrical odd-modulus frequency divider
[NASA-CASE-NPO-13426-1] c33 N75-31330

Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331

Doped Josephson tunneling junction for use in a sensitive IR detector
[NASA-CASE-NPO-13348-1] c33 N75-31332

Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427

Inert gas metallic vapor laser
[NASA-CASE-NPO-13449-1] c36 N75-32441

Helium refrigerator
[NASA-CASE-NPO-13435-1] c31 N76-14284

Nonlinear nonsingular feedback shift registers
[NASA-CASE-NPO-13451-1] c33 N76-14373

Strain gage mounting assembly
[NASA-CASE-NPO-13170-1] c35 N76-14430

Forward-scatter polarimeter for determining the gaseous depolarization factor in the presence of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434

Thermostatically controlled non-tracking type solar energy concentrator
[NASA-CASE-NPO-13497-1] c44 N76-14602

Multi-computer multiple data path hardware exchange system
[NASA-CASE-NPO-13422-1] c60 N76-14818

Cermet composition and method of fabrication
[NASA-CASE-NPO-13120-1] c27 N76-15311

Dichroic plate
[NASA-CASE-NPO-13506-1] c35 N76-15435

Magnetometer using superconducting rotating body
[NASA-CASE-NPO-13388-1] c35 N76-16390

Scan converting video tape recorder
[NASA-CASE-NPO-10166-2] c35 N76-16391

Hydrogen rich gas generator
[NASA-CASE-NPO-13342-1] c37 N76-16446

Automated system for identifying traces of organic chemical compounds in aqueous solutions
[NASA-CASE-NPO-13063-1] c25 N76-18245

Analog to digital converter
[NASA-CASE-NPO-13385-1] c33 N76-18345

Sampler of gas borne particles
[NASA-CASE-NPO-13396-1] c35 N76-18401

Stark-effect modulation of CO2 laser with NH2D
[NASA-CASE-NPO-11945-1] c36 N76-18427

Diffused waveguiding capillary tube with distributed feedback for a gas laser
[NASA-CASE-NPO-13544-1] c36 N76-18428

System for minimizing internal combustion engine pollution emission
[NASA-CASE-NPO-13402-1] c37 N76-18457

Hydrogen-bromine secondary battery
[NASA-CASE-NPO-13237-1] c44 N76-18641

Hydrogen-rich gas generator
[NASA-CASE-NPO-13464-1] c44 N76-18642

Zinc-halide battery with molten electrolyte
[NASA-CASE-NPO-11961-1] c44 N76-18643

Priority interrupt system
[NASA-CASE-NPO-13067-1] c60 N76-18800

Miniature muscle displacement transducer
[NASA-CASE-NPO-13519-1] c33 N76-19338

Zero torque gear head wrench
[NASA-CASE-NPO-13059-1] c37 N76-20480

Method and apparatus for measurement of trap density and energy distribution in dielectric films
[NASA-CASE-NPO-13443-1] c76 N76-20994

Indicator providing continuous indication of the presence of a specific pollutant in air
[NASA-CASE-NPO-13474-1] c45 N76-21742

Shared memory for a fault-tolerant computer
[NASA-CASE-NPO-13139-1] c60 N76-21914

Wind sensor
[NASA-CASE-NPO-13462-1] c35 N76-24524

Fiber distributed feedback laser
[NASA-CASE-NPO-13531-1] c36 N76-24553

Method and apparatus for generating coherent radiation in the ultra-violet region and above by use of distributed feedback
[NASA-CASE-NPO-13346-1] c36 N76-29575

Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] c37 N76-29590

Hydrogen rich gas generator
[NASA-CASE-NPO-13342-2] c44 N76-29700

Solar-powered pump
[NASA-CASE-NPO-13567-1] c44 N76-29701

Hydrogen rich gas generator
[NASA-CASE-NPO-13464-2] c44 N76-29704

Myocardium wall thickness transducer and measuring method [NASA-CASE-NPO-13644-1]	c52 N76-29895	Automated multi-level vehicle parking system [NASA-CASE-NPO-13058-1]	c37 N77-22480
Catheter tip force transducer for cardiovascular research [NASA-CASE-NPO-13643-1]	c52 N76-29896	Sun direction detection system [NASA-CASE-NPO-13722-1]	c74 N77-22951
Real time analysis of voiced sounds [NASA-CASE-NPO-13465-1]	c32 N76-31372	Phase conjugation method and apparatus for an active retrodirective antenna array [NASA-CASE-NPO-13641-1]	c32 N77-24340
High resolution Fourier interferometer-spectrophotopolarimeter [NASA-CASE-NPO-13604-1]	c35 N76-31490	Internal combustion engine with electrostatic discharging fuels [NASA-CASE-NPO-13798-1]	c37 N77-25535
Reflected-wave maser [NASA-CASE-NPO-13490-1]	c36 N76-31512	Isotope separation using metallic vapor lasers [NASA-CASE-NPO-13550-1]	c36 N77-26477
Method of making hollow elastomeric bodies [NASA-CASE-NPO-13535-1]	c37 N76-31524	Distributed feedback acoustic surface wave oscillator [NASA-CASE-NPO-13673-1]	c71 N77-26919
Solar cell grid patterns [NASA-CASE-NPO-13087-2]	c44 N76-31666	Penetrometer [NASA-CASE-NPO-11103-1]	c35 N77-27367
Portable antenna [NASA-CASE-NPO-13553-1]	c33 N76-32457	Polymeric electrolytic hygrometer [NASA-CASE-NPO-13948-1]	c35 N77-28470
Annular arc accelerator shock tube [NASA-CASE-NPO-13528-1]	c09 N77-10071	Lightweight reflector assembly [NASA-CASE-NPO-13707-1]	c74 N77-28933
Cryostat system for temperatures on the order of 2 deg K or less [NASA-CASE-NPO-13459-1]	c31 N77-10229	Aldehyde-containing urea-absorbing polysaccharides [NASA-CASE-NPO-13620-1]	c27 N77-30236
The dc-to-dc converters employing staggered-phase power switches with two-loop control [NASA-CASE-NPO-13512-1]	c33 N77-10428	Phase substitution of spare converter for a failed one of parallel phase staggered converters [NASA-CASE-NPO-13812-1]	c33 N77-30365
Ion and electron detector for use in an ICR spectrometer [NASA-CASE-NPO-13479-1]	c35 N77-10492	Oil and fat absorbing polymers [NASA-CASE-NPO-11609-2]	c27 N77-31308
Hydrogen-rich gas generator [NASA-CASE-NPO-13560-1]	c44 N77-10636	Combustion engine [NASA-CASE-NPO-13671-1]	c37 N77-31497
Space communication system for compressed data with a concatenated Reed-Solomon-Viterbi coding channel [NASA-CASE-NPO-13545-1]	c32 N77-12240	Apparatus for photon excited catalysis [NASA-CASE-NPO-13566-1]	c25 N77-32255
Computer interface system [NASA-CASE-NPO-13428-1]	c60 N77-12721	Strong thin membrane structure [NASA-CASE-NPO-14021-1]	c27 N77-32313
High temperature oxidation resistant cermet compositions [NASA-CASE-NPO-13666-1]	c27 N77-13217	Charge-coupled device data processor for an airborne imaging radar system [NASA-CASE-NPO-13587-1]	c32 N77-32342
Frequency discriminator and phase detector circuit [NASA-CASE-NPO-11515-1]	c33 N77-13315	Circuit for automatic load sharing in parallel converter modules [NASA-CASE-NPO-14056-1]	c33 N77-32402
Mass spectrometer with magnetic pole pieces providing the magnetic fields for both the magnetic sector and an ion-type vacuum pump [NASA-CASE-NPO-13663-1]	c35 N77-14406	Direct reading inductance meter [NASA-CASE-NPO-13792-1]	c35 N77-32455
Thermocouple installation [NASA-CASE-NPO-13540-1]	c35 N77-14409	Solar photolysis of water [NASA-CASE-NPO-13675-1]	c44 N77-32580
Method and apparatus for background signal reduction in opto-acoustic absorption measurement [NASA-CASE-NPO-13683-1]	c35 N77-14411	Low to high temperature energy conversion system [NASA-CASE-NPO-13510-1]	c44 N77-32581
Improved nozzle for use with abrasive and/or corrosive materials [NASA-CASE-NPO-13823-1]	c37 N77-17466	Solar energy collection system [NASA-CASE-NPO-13810-1]	c44 N77-32582
Nuclear thermionic converter [NASA-CASE-NPO-13121-1]	c73 N77-18891	Three-dimensional tracking solar energy concentrator and method for making same [NASA-CASE-NPO-13736-1]	c44 N77-32583
Passive intrusion detection system [NASA-CASE-NPO-13804-1]	c35 N77-19390	Compact artificial hand [NASA-CASE-NPO-13906-1]	c54 N77-32723
Multiple rate digital command detection system with range clean-up capability [NASA-CASE-NPO-13753-1]	c32 N77-20289	Overload protection system for power inverter [NASA-CASE-NPO-13872-1]	c33 N78-10377
Solar energy collection system [NASA-CASE-NPO-13579-2]	c44 N77-20565	Photoelectron spectrometer with means for stabilizing sample surface potential [NASA-CASE-NPO-13772-1]	c35 N78-10429
Low cost solar energy collection system [NASA-CASE-NPO-13579-3]	c44 N77-20566	Machine for use in monitoring fatigue life for a plurality of elastomeric specimens [NASA-CASE-NPO-13731-1]	c39 N78-10493
Charge storage diode modulators and demodulators [NASA-CASE-NPO-10189-1]	c33 N77-21314	Portable linear-focused solar thermal energy collecting system [NASA-CASE-NPO-13734-1]	c44 N78-10554
Compact, high intensity arc lamp with internal magnetic field producing means [NASA-CASE-NPO-11510-1]	c33 N77-21315	Acoustic energy shaping [NASA-CASE-NPO-13802-1]	c71 N78-10837
Depressurization of arc lamps [NASA-CASE-NPO-10790-1]	c33 N77-21316	Machine for forming a solar array strip [NASA-CASE-NPO-13652-2]	c37 N78-13441
Electromagnetic transducer recording head having a laminated core section and tapered gap [NASA-CASE-NPO-10711-1]	c35 N77-21392	High voltage, high current Schottky barrier solar cell [NASA-CASE-NPO-13482-1]	c44 N78-13526
Cryogenic liquid sensor [NASA-CASE-NPO-10619-1]	c35 N77-21393	High resolution threshold photoelectron spectroscopy by electron attachment [NASA-CASE-NPO-14078-1]	c76 N78-13917
Uniform variable light source [NASA-CASE-NPO-11429-1]	c74 N77-21941	Durable antistatic coating for polymethylmethacrylate [NASA-CASE-NPO-13867-1]	c27 N78-14164
Arc control in compact arc lamps [NASA-CASE-NPO-10870-1]	c33 N77-22386	Ultra stable frequency distribution system [NASA-CASE-NPO-13836-1]	c32 N78-15323
Adjustable chamfering tool [NASA-CASE-NPO-10857-1]	c37 N77-22478	Selective image area control of X-ray film exposure density [NASA-CASE-NPO-13808-1]	c35 N78-15461
Hydraulic drain means for servo-systems [NASA-CASE-NPO-10316-1]	c37 N77-22479	Motion restraining device [NASA-CASE-NPO-13619-1]	c37 N78-16369
		Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof [NASA-CASE-NPO-10557]	c27 N78-17214

Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement [NASA-CASE-NPO-13764-1] c27 N78-17215

High performance ammonium nitrate propellant [NASA-CASE-NPO-14260] c28 N78-17230

Purging means and method for Xenon arc lamps [NASA-CASE-NPO-11978] c31 N78-17238

Pressure transducer [NASA-CASE-NPO-11150] c35 N78-17359

A speed control device for a heavy duty shaft [NASA-CASE-NPO-14170] c37 N78-17391

Cross correlation anomaly detection system [NASA-CASE-NPO-13283] c38 N78-17395

Automatic visual inspection system for microelectronics [NASA-CASE-NPO-13282] c38 N78-17396

Low cost solar energy collection system [NASA-CASE-NPO-13579-1] c44 N78-17460

System for near real-time crustal deformation monitoring [NASA-CASE-NPO-14124-1] c46 N78-17529

Differential optoacoustic absorption detector [NASA-CASE-NPO-13759-1] c74 N78-17867

Clutter free synthetic aperture radar correlator [NASA-CASE-NPO-14035-1] c32 N78-18266

Interferometer mirror tilt correcting system [NASA-CASE-NPO-13687-1] c35 N78-18391

Over-under double-pass interferometer [NASA-CASE-NPO-13999-1] c35 N78-18395

Independent gain and bandwidth control of a traveling wave maser [NASA-CASE-NPO-13801-1] c36 N78-18410

High temperature resistant cermet and ceramic compositions [NASA-CASE-NPO-13690-1] c27 N78-19302

Microwave power converter [NASA-CASE-NPO-14068-1] c44 N78-19609

Resolution enhanced sound detecting apparatus [NASA-CASE-NPO-14134-1] c71 N78-19898

Liquid reactant feeder for arc assisted metal reduction reactor [NASA-CASE-NPO-14382-1] c25 N78-22186

Module failure isolation circuit for paralleled inverters [NASA-CASE-NPO-14000-1] c33 N78-22299

Redundant operation of counter modules [NASA-CASE-NPO-14162-1] c35 N78-22347

System for forming a quadrifid image comprising angularly related fields of view of a three dimensional object [NASA-CASE-NPO-14219-1] c35 N78-22348

Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures [NASA-CASE-NPO-14254-1] c36 N78-22359

Improved base drive for paralleled inverter systems [NASA-CASE-NPO-14163-1] c37 N78-22376

Double-sided solar cell package [NASA-CASE-NPO-14199-1] c44 N78-22470

Biocontamination and particulate detection system [NASA-CASE-NPO-13953-1] c51 N78-22587

Velocity servo for continuous scan Fourier interference spectrometer [NASA-CASE-NPO-14093-1] c74 N78-22891

Underground mineral extraction [NASA-CASE-NPO-14140-1] c31 N78-24387

Thin conformal antenna array for microwave power conversions [NASA-CASE-NPO-13886-1] c32 N78-24391

Portable heatable container [NASA-CASE-NPO-14237-1] c37 N78-24554

High temperature resistant cermet and ceramic compositions [NASA-CASE-NPO-13690-3] c27 N78-25219

Multistation refrigeration system [NASA-CASE-NPO-13839-1] c31 N78-25256

Satellite personal communications system [NASA-CASE-NPO-14480-1] c32 N78-25275

Swept group delay measurement [NASA-CASE-NPO-13909-1] c33 N78-25319

Polymeric electrolytic hygrometer [NASA-CASE-NPO-13948-1] c35 N78-25391

Soft X-ray laser using crystal channels as distributed feedback cavities [NASA-CASE-NPO-13532-2] c36 N78-25409

Power control for hot gas engines [NASA-CASE-NPO-14220-1] c37 N78-25430

Hot gas engine with dual crankshafts [NASA-CASE-NPO-14221-1] c37 N78-25431

A tool for use in joining connectors to shielded cables [NASA-CASE-NPO-14296-1] c37 N78-25432

A solar array strip and a method for forming the same [NASA-CASE-NPO-13652-3] c44 N78-25560

Process for manufacturing cannula [NASA-CASE-NPO-14073-1] c52 N78-25762

On-site ammonia plant [NASA-CASE-NPO-14233-1] c25 N78-27233

Method for analyzing radiation sensitivity of integrated circuits [NASA-CASE-NPO-14350-1] c33 N78-27330

Charge transfer reaction laser with preionization means [NASA-CASE-NPO-13945-1] c36 N78-27402

RF beam center location method and apparatus for power transmission system [NASA-CASE-NPO-13821-1] c44 N78-28594

Driver for solar cell I-V characteristic plots [NASA-CASE-NPO-14096-1] c44 N78-28625

Control for nuclear thermionic power source [NASA-CASE-NPO-13114-2] c73 N78-28913

Magneto-optic detection system with noise cancellation [NASA-CASE-NPO-11954-1] c35 N78-29421

Nitramine propellants [NASA-CASE-NPO-14103-1] c28 N78-31255

Reflex feed system for dual frequency antenna with frequency cutoff means [NASA-CASE-NPO-14022-1] c32 N78-31321

Solar pond [NASA-CASE-NPO-13581-2] c44 N78-31525

Non-tracking solar energy collector system [NASA-CASE-NPO-13813-1] c44 N78-31526

Coal desulfurization process [NASA-CASE-NPO-13937-1] c44 N78-31527

Solid propellant motor [NASA-CASE-NPO-11458A] c20 N78-32179

Coal desulfurization [NASA-CASE-NPO-14272-1] c25 N78-33164

Thermoplastic rubber comprising ethylene-vinyl acetate copolymer, asphalt and fluxing oil [NASA-CASE-NPO-8835] c27 N78-33228

Hydrogen-fueled engine [NASA-CASE-NPO-13763-1] c44 N78-33526

Plural output optometric sample cell and analysis system [NASA-CASE-NPO-10233-1] c74 N78-33913

Interferometric locating system [NASA-CASE-NPO-14173-1] c04 N79-10039

Portable electrophoresis apparatus using minimum electrolyte [NASA-CASE-NPO-13274-1] c25 N79-10163

Ozonation of cooling tower waters [NASA-CASE-NPO-14340-1] c25 N79-10167

Stark cell optoacoustic detection of constituent gases in sample [NASA-CASE-NPO-14143-1] c25 N79-10169

Silicone containing solid propellant [NASA-CASE-NPO-14477-1] c28 N79-10224

An improved system for slicing silicon wafers [NASA-CASE-NPO-14406-1] c31 N79-10245

Support assembly for cryogenically coolable low-noise choked waveguide [NASA-CASE-NPO-14253-1] c31 N79-10246

Automatic communication signal monitoring system [NASA-CASE-NPO-13941-1] c32 N79-10262

Microwave power transmission beam safety system [NASA-CASE-NPO-14224-1] c32 N79-10271

Surface roughness measuring system [NASA-CASE-NPO-13862-1] c35 N79-10391

Stark cell spectrophone with polarization modulation [NASA-CASE-NPO-14362-1] c35 N79-10392

Vehicular impact absorption system [NASA-CASE-NPO-14014-1] c37 N79-10420

Dual membrane hollow fiber fuel cell and method of operating same [NASA-CASE-NPO-13732-1] c44 N79-10513

Combuster [NASA-CASE-NPO-13958-1] c25 N79-11151

Surfactant-assisted liquefaction of particulate carbonaceous substances [NASA-CASE-NPO-13904-1] c25 N79-11152

Electroexplosive device [NASA-CASE-NPO-13858-1] c28 N79-11231

Space-charge-limited solid-state triode
[NASA-CASE-NPO-13064-1] c33 N79-11314

Plasma igniter for internal combustion engine
[NASA-CASE-NPO-13828-1] c37 N79-11405

Non-tracking solar energy collector system
[NASA-CASE-NPO-13817-1] c44 N79-11471

Method of controlling defect orientation in silicon crystal ribbon growth
[NASA-CASE-NPO-13918-1] c76 N79-11920

Method and means for helium/hydrogen ratio measurement by alpha scattering
[NASA-CASE-NPO-14079-1] c35 N79-12416

An improved suspension system for a wheel rolling on a flat track
[NASA-CASE-NPO-14395-1] c37 N79-12446

Method and apparatus for measuring minority carrier lifetimes and bulk diffusion length in P-N junction solar cells
[NASA-CASE-NPO-14100-1] c44 N79-12541

Automated clinical system for chromosome analysis
[NASA-CASE-NPO-13913-1] c52 N79-12694

Conical scan tracking system employing a large antenna
[NASA-CASE-NPO-14009-1] c32 N79-13214

Stabilization of He2(a 3 Sigma u+ molecules in liquid helium by optical pumping for vacuum UV laser 6
[NASA-CASE-NPO-13993-1] c72 N79-13826

High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-2] c27 N79-14213

Inhibited solid propellant composition containing beryllium hydride
[NASA-CASE-NPO-10866-1] c28 N79-14228

Digital demodulator-correlator
[NASA-CASE-NPO-13982-1] c32 N79-14267

Azimuth correlator for real-time synthetic aperture radar image processing
[NASA-CASE-NPO-14019-1] c32 N79-14268

Radio frequency arraying method for receivers
[NASA-CASE-NPO-14328-1] c32 N79-14272

Discriminator aided phase lock acquisition for suppressed carrier signals
[NASA-CASE-NPO-14311-1] c32 N79-14276

Frequency translating phase conjugation circuit for active retrodirective antenna array
[NASA-CASE-NPO-14536-1] c32 N79-14277

Real-time multiple-look synthetic aperture radar processor for spacecraft applications
[NASA-CASE-NPO-14054-1] c32 N79-14278

Apparatus for providing a servo drive signal in a high-speed stepping intercometer
[NASA-CASE-NPO-13569-2] c35 N79-14348

High-torque open-end wrench
[NASA-CASE-NPO-13541-1] c37 N79-14383

Fluidized bed coal combustion reactor
[NASA-CASE-NPO-14273-1] c37 N79-14388

Sun tracking solar energy collector
[NASA-CASE-NPO-13921-1] c44 N79-14526

Primary reflector for solar energy collection systems
[NASA-CASE-NPO-13579-4] c44 N79-14529

Gas diffusion liquid storage bag and method of use for storing blood
[NASA-CASE-NPO-13930-1] c52 N79-14749

Coupling apparatus for ultrasonic medical diagnostic system
[NASA-CASE-NPO-13935-1] c52 N79-14751

High-speed multiplexing of keyboard data inputs
[NASA-CASE-NPO-14554-1] c60 N79-14797

Photomechanical transducer
[NASA-CASE-NPO-14363-1] c76 N79-14908

Thermomagnetic recording and magnetic-optic playback system
[NASA-CASE-NPO-10872-1] c35 N79-16246

Manganese bismuth films with narrow transfer characteristics for Curie-point switching
[NASA-CASE-NPO-11336-1] c76 N79-16678

Dual band combiner for horn antenna
[NASA-CASE-NPO-14519-1] c32 N79-17068

CCD correlated quadruple sampling processor
[NASA-CASE-NPO-14426-1] c33 N79-17134

Cooled echelle grating spectrometer
[NASA-CASE-NPO-14371-1] c35 N79-17196

A phase-angle controller for stirling engines
[NASA-CASE-NPO-14388-1] c37 N79-17217

Multispectral imaging and analysis system
[NASA-CASE-NPO-13691-1] c43 N79-17288

Solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N79-17314

Method of mitigating titanium impurities effects in P-type silicon material for solar cells
[NASA-CASE-NPO-14635-1] c44 N79-17315

Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
[NASA-CASE-NPO-14657-1] c74 N79-17683

Process for purification of waste water produced by a Kraft process pulp and paper mill
[NASA-CASE-NPO-13847-2] c85 N79-17747

Thermal energy transformer
[NASA-CASE-NPO-14058-1] c44 N79-18443

Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
[NASA-CASE-NPO-14525-1] c32 N79-19195

Borehole geological assessment
[NASA-CASE-NPO-14231-1] c46 N79-19521

Apparatus for endoscopic examination
[NASA-CASE-NPO-14092-1] c52 N79-19678

Low cost cryostat
[NASA-CASE-NPO-14513-1] c31 N79-20283

Controller for computer control of brushless DC motors
[NASA-CASE-NPO-13970-1] c33 N79-20315

Method and turbine for extracting kinetic energy from a stream of two-phase fluid
[NASA-CASE-NPO-14130-1] c34 N79-20335

Multi-channel rotating optical interface for data transmission
[NASA-CASE-NPO-14066-1] c44 N79-20496

An improved solar energy receiver for a stirling engine
[NASA-CASE-NPO-14619-1] c44 N79-20513

A system for plotting subsoil structure and method therefor
[NASA-CASE-NPO-14191-1] c46 N79-20555

A system for detecting substructure microfractures and method therefor
[NASA-CASE-NPO-14192-1] c46 N79-20556

Terminal guidance sensor system
[NASA-CASE-NPO-14521-1] c54 N79-20746

Digital data reformatter/deserializer
[NASA-CASE-NPO-13676-1] c60 N79-20751

Acoustic driving of rotor
[NASA-CASE-NPO-14005-1] c71 N79-20827

System and method for obtaining wide screen Schlieren photographs
[NASA-CASE-NPO-14174-1] c74 N79-20856

Pulse switching for high energy lasers
[NASA-CASE-NPO-14556-1] c36 N79-21336

K

KELSEY-HAYES CO., ROMULUS, MICH.
Variable thrust ion engine utilizing thermally decomposable solid fuel Patent
[NASA-CASE-INP-00923] c28 N70-36802

KELTEC INDUSTRIES, INC., ALEXANDRIA, VA.
Unfurlable structure including coiled strips thrust launched upon tension release Patent
[NASA-CASE-HQN-00937] c07 N71-28979

KINELOGIC CORP., PASADENA, CALIF.
Excitation and detection circuitry for a flux responsive magnetic head
[NASA-CASE-INP-04183] c09 N69-24329

Tape guidance system and apparatus for the provision thereof Patent
[NASA-CASE-INP-09453] c08 N71-19420

Incremental tape recorder and data rate converter Patent
[NASA-CASE-INP-02778] c08 N71-22710

KOLLSMAN INSTRUMENT CORP., ELMHURST, N. Y.
Wide angle long eye relief eyepiece Patent
[NASA-CASE-XMS-06056-1] c23 N71-24857

KOLLSMAN INSTRUMENT CORP., SYOSSET, N. Y.
Digital modulator and demodulator Patent
[NASA-CASE-ERC-10041] c08 N71-29138

Ritchey-Chretien Telescope
[NASA-CASE-GSC-11487-1] c14 N73-30393

KONIGSBERG INSTRUMENTS, INC., PASADENA, CALIF.
Accelerometer telemetry system
[NASA-CASE-ABC-10849-1] c17 N76-29347

KORAD CORP., NEW YORK.
Laser apparatus for removing material from

SOURCE INDEX

MARTIN MARIETTA CORP.

rotating objects Patent
[NASA-CASE-NFS-11279] c16 N71-20400

L

LIFESYSTEMS, INC., BEACHWOOD, OHIO.

Iodine generator for reclaimed water purification
[NASA-CASE-HSC-14632-1] c54 N78-14784

LING-TEMCO-VOUGHT, INC., DALLAS, TEX.

Latch/ejector unit Patent
[NASA-CASE-XLA-03538] c15 N71-24897

LITTLE (ARTHUR D.), INC., CAMBRIDGE, MASS.

Apparatus for measuring thermal conductivity
Patent
[NASA-CASE-XGS-01052] c14 N71-15992

Non-flammable elastomeric fiber from a
fluorinated elastomer and containing an
halogenated flame retardant
[NASA-CASE-HSC-14331-1] c27 N76-24405

Flame retardant spandex type polyurethanes
[NASA-CASE-HSC-14331-2] c27 N78-17213

Flame retardant formulations and products
produced therefrom
[NASA-CASE-HSC-16307-1] c25 N78-27232

Process for spinning flame retardant elastomeric
compositions
[NASA-CASE-HSC-14331-3] c27 N78-32262

LITTON INDUSTRIES, BEVERLY HILLS, CALIF.

Life support system
[NASA-CASE-HSC-12411-1] c05 N72-20096

LITTON INDUSTRIES, COLLEGE PARK, MD.

Shrink-fit gas valve Patent
[NASA-CASE-IGS-00587] c15 N70-35087

LITTON INDUSTRIES, SAN CARLOS, CALIF.

Very high intensity light source using a cathode
ray tube
[NASA-CASE-INP-01296] c33 N75-27250

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Apparatus for sampling particulates in gases
[NASA-CASE-RQN-10037-1] c14 N73-27376

LOCKHEED AIRCRAFT CORP., BOBBANK, CALIF.

Aerodynamic protection for space flight vehicles
Patent
[NASA-CASE-INP-02507] c31 N71-17679

LOCKHEED-CALIFORNIA CO., BOBBANK.

Absorptive splitter for closely spaced
supersonic engine air inlets Patent
[NASA-CASE-XLA-02865] c28 N71-15563

Multistage aerospace craft
[NASA-CASE-XNP-02263] c05 N74-10907

LOCKHEED ELECTRONICS CO., HOUSTON, TEX.

Television signal scan rate conversion system
Patent
[NASA-CASE-XMS-07168] c07 N71-11300

Burst synchronization detection system Patent
[NASA-CASE-XMS-05605-1] c10 N71-19468

Automatic signal range selector for metering
devices Patent
[NASA-CASE-XMS-06497] c14 N71-26244

Monostable multivibrator with complementary NOR
gates Patent
[NASA-CASE-HSC-13492-1] c10 N71-28860

Ultrastable calibrated light source
[NASA-CASE-HSC-12293-1] c14 N72-27411

Data storage, image tube type
[NASA-CASE-HSC-14053-1] c60 N74-12888

Differential phase shift keyed communication
system
[NASA-CASE-HSC-14065-1] c32 N74-26654

Differential phase shift keyed signal resolver
[NASA-CASE-HSC-14066-1] c33 N74-27705

Method and apparatus for decoding compatible
convolutional codes
[NASA-CASE-HSC-14070-1] c32 N74-32598

Pulse stretcher for narrow pulses
[NASA-CASE-HSC-14130-1] c33 N74-32711

Peak holding circuit for extremely narrow pulses
[NASA-CASE-HSC-14129-1] c33 N75-18479

Random pulse generator
[NASA-CASE-HSC-14131-1] c33 N75-19515

Digital transmitter for data bus communications
system
[NASA-CASE-HSC-14558-1] c32 N75-21486

Low distortion receiver for bi-level baseband
PCM waveforms
[NASA-CASE-HSC-14557-1] c32 N76-16249

Dual frequency circularly polarized microwave
integrated antenna
[NASA-CASE-HSC-16100-1] c32 N77-15233

System for producing chroma signals
[NASA-CASE-HSC-14683-1] c74 N77-18893

Secure communication system
[NASA-CASE-HSC-16462-1] c32 N78-25274

Phased array antenna control
[NASA-CASE-HSC-14939-1] c32 N79-11264

Apparatus and method for stabilized phase
detection for binary signal tracking loops
[NASA-CASE-HSC-16461-1] c33 N79-11313

LOCKHEED MISSILES AND SPACE CO., SUBMITTAL, CALIF.

Device for handling heavy loads
[NASA-CASE-XNP-04969] c11 N69-27466

Transient heat transfer gauge Patent
[NASA-CASE-XNP-09802] c33 N71-15641

Dual solid cryogenics for spacecraft refrigeration
Patent
[NASA-CASE-GSC-10188-1] c23 N71-24725

Apparatus for detecting the amount of material
in a resonant cavity container Patent
[NASA-CASE-XNP-02500] c18 N71-27397

Emergency earth orbital escape device
[NASA-CASE-HSC-13281] c31 N72-18859

Solar energy powered heliotrope
[NASA-CASE-GSC-10945-1] c21 N72-31637

Coaxial inverted geometry transistor having
buried emitter
[NASA-CASE-ARC-10330-1] c09 N73-32112

Whole body measurement systems
[NASA-CASE-HSC-13972-1] c52 N74-10975

Four phase logic systems
[NASA-CASE-HSC-14240-1] c33 N75-14957

Strain arrestor plate for fused silica tile
[NASA-CASE-HSC-14182-1] c27 N76-14264

Medical subject monitoring systems
[NASA-CASE-HSC-14180-1] c52 N76-14757

Two-component ceramic coating for silica
insulation
[NASA-CASE-HSC-14270-1] c27 N76-22377

Optical alignment device
[NASA-CASE-ARC-10932-1] c74 N76-22993

Three-component ceramic coating for silica
insulation
[NASA-CASE-HSC-14270-2] c27 N76-23426

Process of forming catalytic surfaces for wet
oxidation reactions
[NASA-CASE-HSC-14831-1] c25 N78-10225

Method of fabricating a photovoltaic of a
substantially transparent construction
[NASA-CASE-NPO-14303-1] c44 N78-28626

Partial polarizer filter
[NASA-CASE-GSC-12225-1] c74 N79-14891

LOCKHEED PROPULSION CO., REDLANDS, CALIF.

Propellant grain for rocket motors Patent
[NASA-CASE-XGS-03556] c27 N70-35534

LTV AEROSPACE CORP., DALLAS, TEX.

Method of fluxless brazing and diffusion bonding
of aluminum containing components
[NASA-CASE-HSC-14435-1] c37 N76-18455

M

MACON-BUST CO., LEXINGTON, KY.

Stretcher Patent
[NASA-CASE-INP-06589] c05 N71-23159

MARLIN-ROCKWELL CORP., JANESTOWN, N. Y.

Drilled ball bearing with a one piece
anti-tipping cage assembly
[NASA-CASE-LBW-11925-1] c37 N75-31446

MARQUARDT CORP., VAN NUYS, CALIF.

Fuel injection pump for internal combustion
engines Patent
[NASA-CASE-HSC-12139-1] c28 N71-14058

Multislot film cooled pyrolytic graphite rocket
nozzle Patent
[NASA-CASE-INP-04389] c28 N71-20942

Tube sealing device Patent
[NASA-CASE-NPO-10431] c15 N71-29132

MARTIN MARIETTA AEROSPACE, DENVER, COLO.

Method and apparatus for tensile testing of
metal foil
[NASA-CASE-LAR-10208-1] c35 N76-18400

MARTIN MARIETTA CORP., BALTIMORE, MD.

Landing gear Patent
[NASA-CASE-INP-01174] c02 N70-41589

Emergency escape system Patent
[NASA-CASE-IKS-02342] c05 N71-11199

Device to prevent clogging in a hopper
[NASA-CASE-LAR-10961-1] c15 N73-12496

MARTIN MARIETTA CORP., DENVER, COLO.

Flexible/rigidifiable cable assembly
[NASA-CASE-HSC-13512-1] c15 N72-22485
Derivation of a tangent function using an integrated circuit four-quadrant multiplier
[NASA-CASE-HSC-13907-1] c10 N73-26230
Low distortion automatic phase control circuit
[NASA-CASE-HFS-21671-1] c33 N74-22885
Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system
[NASA-CASE-HSC-14245-1] c18 N75-27041
Varying density composite structure
[NASA-CASE-LAR-11181-1] c39 N75-31479
Filter regeneration systems
[NASA-CASE-HSC-14273-1] c34 N75-33342
Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372
Method and apparatus for fluffing, separating, and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456
Learning aid malfunction detection system
[NASA-CASE-HSC-14916-1] c33 N78-10375
Urine collection device
[NASA-CASE-HSC-16433-1] c52 N78-27750
A signal attenuator
[NASA-CASE-FEC-11012-1] c33 N78-28339
Positive isolation disconnect
[NASA-CASE-HSC-16043-1] c37 N79-11402
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[NASA-CASE-GSC-10216-1] c23 N71-26722
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[NASA-CASE-HMS-03537] c15 N69-21471
Hydraulic drive mechanism Patent
[NASA-CASE-HMS-03252] c15 N71-10658
Electronic amplifier with power supply switching Patent
[NASA-CASE-HMS-00945] c09 N71-10798
Method and apparatus for stabilizing a gaseous optical maser Patent
[NASA-CASE-XGS-03644] c16 N71-18614
Power supply Patent
[NASA-CASE-HMS-02159] c10 N71-22961
Optical frequency waveguide Patent
[NASA-CASE-HQN-10541-1] c07 N71-26291
Laser machining apparatus Patent
[NASA-CASE-HQN-10541-2] c15 N71-27135
Optical frequency waveguide and transmission system Patent
[NASA-CASE-HQN-10541-4] c16 N71-27183
Compact spectroradiometer
[NASA-CASE-HQN-10683] c14 N71-34389
Optical frequency waveguide and transmission system
[NASA-CASE-HQN-10541-3] c23 N72-23695
Display research collision warning system
[NASA-CASE-HQN-10703] c21 N73-13643
Transparent switchboard
[NASA-CASE-HSC-13746-1] c10 N73-32143
Vapor deposition apparatus
[NASA-CASE-HQN-10462] c25 N75-29192
Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-HSC-12531-1] c35 N75-30504
NB ASSOCIATES, SAN RAMON, CALIF.
Hypervelocity gun
[NASA-CASE-XLE-03186-1] c09 N79-21084
MCDONNELL AIRCRAFT CO., ST. LOUIS, MO.
Method for making a heat insulating and ablative structure
[NASA-CASE-HMS-01108] c15 N69-24322
Heat flux sensor assembly
[NASA-CASE-HMS-05909-1] c14 N69-27459
Apparatus for purging systems handling toxic, corrosive, noxious and other fluids Patent
[NASA-CASE-HMS-01905] c12 N71-21089
Power supply circuit Patent
[NASA-CASE-HMS-00913] c10 N71-23543
Multiple circuit protector device
[NASA-CASE-HMS-02744] c33 N75-27249
Apparatus for welding sheet material
[NASA-CASE-HMS-01330] c37 N75-27376
MCDONNELL-DOUGLAS ASTRONAUTICS CO., HUNTINGTON BEACH, CALIF.
Heat transfer device
[NASA-CASE-HFS-22938-1] c34 N76-18374

MCDONNELL-DOUGLAS ASTRONAUTICS CO., SANTA MONICA, CALIF.

New polymers of perfluorobutadiene and method of manufacture Patent application
[NASA-CASE-NPO-10863] c06 N70-11251
Method of polymerizing perfluorobutadiene Patent application
[NASA-CASE-NPO-10447] c06 N70-11252
MCDONNELL-DOUGLAS ASTRONAUTICS CO., ST. LOUIS, MO.
Passive propellant system
[NASA-CASE-HFS-23642-2] c20 N78-27176
MCDONNELL-DOUGLAS CORP., HUNTINGTON BEACH, CALIF.
Variable direction force coupler
[NASA-CASE-HFS-20317] c15 N73-13463
Potable water dispenser
[NASA-CASE-HFS-21115-1] c54 N74-12779
Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-HFS-21163-1] c54 N74-17853
Airlock
[NASA-CASE-HFS-20922-1] c18 N74-22136
Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-HFS-21556-1] c35 N74-26945
Thrust-isolating mounting
[NASA-CASE-HFS-21680-1] c18 N74-27397
Device for measuring tensile forces
[NASA-CASE-HFS-21728-1] c35 N74-27865
Flame detector operable in presence of proton radiation
[NASA-CASE-HFS-21577-1] c19 N74-29410
Phase-locked servo system
[NASA-CASE-HFS-22073-1] c33 N75-13139
Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612
Meter for use in detecting tension in straps having predetermined elastic characteristics
[NASA-CASE-HFS-22189-1] c35 N75-19615
Latching device
[NASA-CASE-HFS-21606-1] c37 N75-19685
Device for use in loading tension members
[NASA-CASE-HFS-21488-1] c14 N75-24794
MCDONNELL-DOUGLAS CORP., NEWPORT BEACH, CALIF.
Method of making membranes
[NASA-CASE-XNP-04264] c03 N69-21337
MCDONNELL-DOUGLAS CORP., SANTA MONICA, CALIF.
Rocket nozzle test method Patent
[NASA-CASE-NPO-10311] c31 N71-15643
Reaction of fluorine with polyperfluoropolyenes
[NASA-CASE-NPO-10862] c06 N72-22107
Polymers of perfluorobutadiene and method of manufacture
[NASA-CASE-NPO-10863-2] c06 N72-25152
Electrolytic cell structure
[NASA-CASE-LAR-11042-1] c33 N75-27252
Prevention of hydrogen embrittlement of high strength steel by hydrazine compositions
[NASA-CASE-NPO-12122-1] c24 N76-14203
Utilization of oxygen difluoride for syntheses of fluoropolymers
[NASA-CASE-NPO-12061-1] c27 N76-16228
MCDONNELL-DOUGLAS CORP., ST. LOUIS, MO.
Thermally conductive polymers
[NASA-CASE-GSC-11304-1] c06 N72-21105
MEDICAL SCIENCES RESEARCH FOUNDATION, SAN FRANCISCO, CALIF.
Reduction of blood serum cholesterol
[NASA-CASE-NPO-12119-1] c52 N75-15270
MELLOW INST., PITTSBURGH, PA.
Instrument for measuring torsional creep and recovery Patent
[NASA-CASE-XLE-01481] c14 N71-10781
MELPAR, INC., FALLS CHURCH, VA.
Television simulation for aircraft and space flight Patent
[NASA-CASE-XFE-03107] c09 N71-19449
Compact solar still Patent
[NASA-CASE-HMS-04533] c15 N71-23086
METCON, INC., SALEM, MASS.
Tuning arrangement for an electron discharge device or the like Patent
[NASA-CASE-XNP-09771] c09 N71-24841
METHODIST HOSPITAL, HOUSTON, TEX.
Snap-in compressible biomedical electrode
[NASA-CASE-HSC-14623-1] c52 N77-28717
MICROWAVE ELECTRONICS CORP., PALO ALTO, CALIF.
Folded traveling wave maser structure Patent
[NASA-CASE-XNP-05219] c16 N71-15550

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION,

Superconducting magnet Patent
[NASA-CASE-IMP-06503] c23 N71-29049

MICROWAVE RESEARCH CORP., NORTH ANDOVER, MASS.
Highly efficient antenna system using a corrugated horn and scanning hyperbolic reflector
[NASA-CASE-NPO-13568-1] c32 N76-21365

Multifrequency broadband horn antenna
[NASA-CASE-NPO-14588-1] c32 N79-17067

MIDWEST RESEARCH INST., KANSAS CITY, MO.
Preparation of ordered poly /arylenesiloxane/ polymers
[NASA-CASE-IMP-10753] c06 N71-11237

Inorganic solid film lubricants Patent
[NASA-CASE-IMP-03988] c15 N71-21403

Fluorinated esters of polycarboxylic acids
[NASA-CASE-MPS-21040-1] c06 N73-30098

MILLIKEN (D. B.) CO., ARCADIA, CALIF.
Film feed camera having a detent means Patent
[NASA-CASE-LAR-10686] c14 N71-28935

MINNEAPOLIS-HONEYWELL REGULATOR CO., MINN.
Microelectronic module package Patent
[NASA-CASE-IMS-02182] c10 N71-28783

MODERN MACHINE AND TOOL CO., NEWPORT NEWS, VA.
Means for accommodating large overstrain in lead wires
[NASA-CASE-LAR-10168-1] c33 N74-22865

MONSANTO CO., ST. LOUIS, MO.
Method for the preparation of inorganic single crystal and polycrystalline electronic materials
[NASA-CASE-XLE-02545-1] c76 N79-21910

MONSANTO RESEARCH CORP., DAYTON, OHIO.
Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides)
[NASA-CASE-MPS-22356-1] c23 N75-30256

Polyimides of ether-linked aryl tetracarboxylic dianhydrides
[NASA-CASE-MPS-22355-1] c23 N76-15268

MOTOROLA, INC., PHOENIX, ARIZ.
Automatic frequency discriminators and control for a phase-lock loop providing frequency preset capabilities Patent
[NASA-CASE-IMP-08665] c10 N71-19467

A method of prepurifying metallurgical grade silicon employing reduced pressure atmospheric control
[NASA-CASE-NPO-14474-1] c26 N78-27255

A process for converting amorphous to crystalline silicon with attendant purification
[NASA-CASE-NPO-14223-1] c25 N79-10168

A quartz ball valve
[NASA-CASE-NPO-14473-1] c37 N79-10427

Method and apparatus for quadriphase-shift-key and linear phase modulation
[NASA-CASE-NPO-14444-1] c32 N79-18155

PN lock indicator for dithered PN code tracking loop
[NASA-CASE-NPO-14435-1] c33 N79-18224

MOTOROLA, INC., SCOTTSDALE, ARIZ.
Sealed cabinetry Patent
[NASA-CASE-MSC-12168-1] c09 N71-18600

Digital frequency discriminator Patent
[NASA-CASE-MPS-14322] c08 N71-18692

Phase modulator Patent
[NASA-CASE-MSC-13201-1] c07 N71-28429

Capacitance multiplier and filter synthesizing network
[NASA-CASE-NPO-11948-1] c33 N74-32712

Versatile transponder receiver
[NASA-CASE-NPO-14248-1] c32 N78-24402

Quadrature demodulation
[NASA-CASE-GSC-12137-1] c33 N78-32338

N

NATIONAL ACADEMY OF SCIENCES - NATIONAL RESEARCH COUNCIL, WASHINGTON, D. C.
Gyrator employing field effect transistors
[NASA-CASE-MPS-21433] c09 N73-20232

Suppression of flutter
[NASA-CASE-LAR-10682-1] c02 N73-26004

Optical data processing using paraboloidal mirror segments
[NASA-CASE-GSC-11296-1] c23 N73-30666

Power supply for carbon dioxide lasers
[NASA-CASE-GSC-11222-1] c16 N73-32391

High field CdS detector for infrared radiation
[NASA-CASE-LAR-11027-1] c35 N74-18088

Holography utilizing surface plasmon resonances
[NASA-CASE-MPS-22040-1] c35 N74-26946

Stagnation pressure probe
[NASA-CASE-LAR-11139-1] c35 N74-32878

Integrated P-channel MOS gyrator
[NASA-CASE-MPS-22343-1] c33 N74-34638

Automated analysis of oxidative metabolites
[NASA-CASE-ARC-10469-1] c25 N75-12086

Method of preparing water purification membranes
[NASA-CASE-ARC-10643-1] c25 N75-12087

Method of forming aperture plate for electron microscope
[NASA-CASE-ARC-10448-2] c74 N75-12732

Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654

Anti-gravity device
[NASA-CASE-MPS-22758-1] c70 N75-26789

Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331

Integrable power gyrator
[NASA-CASE-MPS-22342-1] c33 N75-30428

Two stage light gas-plasma projectile accelerator
[NASA-CASE-MPS-22287-1] c75 N76-14931

Micrometeoroid velocity and trajectory analyzer
[NASA-CASE-GSC-11892-1] c35 N76-15433

Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393

Self-energized plasma compressor
[NASA-CASE-MPS-22145-2] c75 N76-17951

Charge injection method and apparatus of producing large area electrets
[NASA-CASE-MPS-23186-1] c33 N76-23483

Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

Electron microscope aperture system
[NASA-CASE-ARC-10448-3] c35 N77-14408

Method for making a hot wire anemometer and product thereof
[NASA-CASE-ARC-10900-1] c35 N77-24454

Length controlled stabilized mode-lock Nd:YAG laser
[NASA-CASE-GSC-11571-1] c36 N77-25499

Method of growing composites of the type exhibiting the Soret effect
[NASA-CASE-MPS-22926-1] c24 N77-27187

A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445

Shock isolator for operating a diode laser and closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515

Method and apparatus for splitting a beam of energy
[NASA-CASE-GSC-12083-1] c73 N78-32848

Cantilever mounted resilient pad gas bearing
[NASA-CASE-LEW-12569-1] c37 N79-10418

Improved subcutaneous electrode structure
[NASA-CASE-ARC-11117-1] c52 N79-15576

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D. C.
Optical spin compensator
[NASA-CASE-IGS-02401] c14 N69-27485

Waveguide mixer
[NASA-CASE-ERC-10179] c07 N72-20141

Semiconductor-ferroelectric memory device
[NASA-CASE-ERC-10307] c08 N72-21198

Shielded cathode mode bulk effect devices
[NASA-CASE-ERC-10119] c26 N72-21701

Fabrication of single crystal film semiconductor devices
[NASA-CASE-ERC-10222] c09 N72-22199

Two color horizon sensor
[NASA-CASE-ERC-10174] c14 N72-25409

Ultraviolet atomic emission detector
[NASA-CASE-HQH-10756-1] c14 N72-25428

Optical pump and driver system for lasers
[NASA-CASE-ERC-10283] c16 N72-25485

Clear air turbulence detector
[NASA-CASE-ERC-10081] c14 N72-28437

Head-up attitude display
[NASA-CASE-ERC-10392] c21 N73-14692

System for indicating direction of intruder aircraft
[NASA-CASE-ERC-10226-1] c14 N73-16483

Aircraft control system
[NASA-CASE-ERC-10439] c02 N73-19004

Display system
[NASA-CASE-BRC-10350] c14 N73-20474
Method and apparatus for measuring solar activity and atmospheric radiation effects
[NASA-CASE-BRC-10276] c14 N73-26432
Doppler shift system
[NASA-CASE-BQN-10740-1] c72 N74-19310
Auditory display for the blind
[NASA-CASE-BQN-10822-1] c71 N74-21014
Laser system with an antiresonant optical ring
[NASA-CASE-BQN-10844-1] c36 N75-19653
Physical correction filter for improving the optical quality of an image
[NASA-CASE-BQN-10542-1] c74 N75-25706
Folding structure fabricated of rigid panels
[NASA-CASE-BHQ-02146] c18 N75-27040
Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility
[NASA-CASE-BQN-10069] c33 N75-27251
Vapor deposition apparatus
[NASA-CASE-BQN-10462] c25 N75-29192
Resistive anode image converter
[NASA-CASE-BQN-10876-1] c33 N76-27473
Rechargeable battery which combats shape change of the zinc anode
[NASA-CASE-BQN-10862-1] c44 N76-29699
System and method for tracking a signal source
[NASA-CASE-BQN-10880-1] c17 N78-17140
Non-equilibrium radiation nuclear reactor
[NASA-CASE-BQN-10841-1] c73 N78-19920
Cooling system for removing metabolic heat from an hermetically sealed spacesuit
[NASA-CASE-ARC-11059-1] c54 N78-32721
Safety flywheel
[NASA-CASE-BQN-10888-1] c44 N79-14527
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. AMES RESEARCH CENTER, MOFFETT FIELD, CALIF.
Nonmagnetic thermal motor for a magnetometer
[NASA-CASE-XAR-03786] c09 N69-21313
Balanced bellows spirometer
[NASA-CASE-XAR-01547] c05 N69-21473
Cryogenic apparatus for measuring the intensity of magnetic fields
[NASA-CASE-XAC-02407] c14 N69-27423
Variable stiffness polymeric damper
[NASA-CASE-XAC-11225] c14 N69-27486
Shock-layer radiation measurement
[NASA-CASE-XAC-02970] c14 N69-39896
Protective circuit of the spark gap type
[NASA-CASE-XAC-08981] c09 N69-39897
Apparatus for coupling a plurality of ungrounded circuits to a grounded circuit Patent
[NASA-CASE-XAC-00086] c09 N70-33182
Two-plane balance Patent
[NASA-CASE-XAC-00073] c14 N70-34813
Centrifuge mounted motion simulator Patent
[NASA-CASE-XAC-00399] c11 N70-34815
Differential pressure cell Patent
[NASA-CASE-XAC-00042] c14 N70-34816
High-temperature, high-pressure spherical segment valve Patent
[NASA-CASE-XAC-00074] c15 N70-34817
Magnetically centered liquid column float Patent
[NASA-CASE-XAC-00030] c14 N70-34820
Propeller blade loading control Patent
[NASA-CASE-XAC-00139] c02 N70-34856
Temperature compensated solid state differential amplifier Patent
[NASA-CASE-XAC-00435] c09 N70-35440
High speed low level electrical stepping switch Patent
[NASA-CASE-XAC-00060] c09 N70-39915
Analog-to-digital conversion system Patent
[NASA-CASE-XAC-00404] c08 N70-40125
Null-type vacuum microbalance Patent
[NASA-CASE-XAC-00472] c15 N70-40180
Thermo-protective device for balances Patent
[NASA-CASE-XAC-00648] c14 N70-40400
Three-axis controller Patent
[NASA-CASE-XAC-01404] c05 N70-41581
Electric arc device for heating gases Patent
[NASA-CASE-XAC-00319] c25 N70-41628
Dynamic sensor Patent
[NASA-CASE-XAC-02877] c14 N70-41681
Universal pilot restraint suit and body support therefor Patent
[NASA-CASE-XAC-00405] c05 N70-41819

Proportional controller Patent
[NASA-CASE-XAC-03392] c03 N70-41954
Force transducer Patent
[NASA-CASE-XAC-01101] c14 N70-41957
Electrode construction Patent
[NASA-CASE-ARC-10043-1] c05 N71-11193
Telemeter adaptable for implanting in an animal Patent
[NASA-CASE-XAC-05706] c05 N71-12342
Gyrator type circuit Patent
[NASA-CASE-XAC-10608-1] c09 N71-12517
Ultraviolet resonance lamp Patent
[NASA-CASE-ARC-10030] c09 N71-12521
Differential temperature transducer Patent
[NASA-CASE-XAC-00812] c14 N71-15598
Multiple circuit switch apparatus with improved pivot actuator structure Patent
[NASA-CASE-XAC-03777] c10 N71-15909
Method of planetary atmospheric investigation using a split-trajectory dual flyby mode Patent
[NASA-CASE-XAC-08494] c30 N71-15990
High efficiency multivibrator Patent
[NASA-CASE-XAC-00942] c10 N71-1604
Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma Patent
[NASA-CASE-XAC-05695] c25 N71-16073
Flight craft Patent
[NASA-CASE-XAC-02058] c02 N71-16087
Three-axis finger tip controller for switches Patent
[NASA-CASE-XAC-02405] c09 N71-16089
Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto Patent
[NASA-CASE-XAC-05506-1] c24 N71-16095
Inertial reference apparatus Patent
[NASA-CASE-XAC-03107] c23 N71-16098
Fastener apparatus Patent
[NASA-CASE-ARC-10140-1] c15 N71-17653
Stabilization of gravity oriented satellites Patent
[NASA-CASE-XAC-01591] c31 N71-17729
Microwave flaw detector Patent
[NASA-CASE-ARC-10009-1] c15 N71-17822
Hypervelocity gun Patent
[NASA-CASE-XAC-05902] c11 N71-18578
Nonlinear analog-to-digital converter Patent
[NASA-CASE-XAC-04031] c08 N71-18594
Demodulation system Patent
[NASA-CASE-XAC-04030] c10 N71-19472
Phase quadrature-plural channel data transmission system Patent
[NASA-CASE-XAC-06302] c08 N71-19763
Two force component measuring device Patent
[NASA-CASE-XAC-04886-1] c14 N71-20439
Attitude controls for VTOL aircraft Patent
[NASA-CASE-XAC-08972] c02 N71-20570
Electric arc apparatus Patent
[NASA-CASE-XAC-01677] c09 N71-20816
Inertia diaphragm pressure transducer Patent
[NASA-CASE-XAC-02981] c14 N71-21072
Stirring apparatus for plural test tubes Patent
[NASA-CASE-XAC-06956] c15 N71-21177
Exposure system for animals Patent
[NASA-CASE-XAC-05333] c11 N71-22875
Vibrating element electrometer with output signal magnified over input signal by a function of the mechanical Q of the vibrating element Patent
[NASA-CASE-XAC-02807] c09 N71-23021
Ball current measuring apparatus having a series resistor for temperature compensation Patent
[NASA-CASE-XAC-01662] c14 N71-23037
Transfer valve Patent
[NASA-CASE-XAC-01158] c15 N71-23051
Hard space suit Patent
[NASA-CASE-XAC-07043] c05 N71-23161
Method and apparatus for continuously monitoring blood oxygenation, blood pressure, pulse rate and the pressure pulse curve utilizing an ear oximeter as transducer Patent
[NASA-CASE-XAC-05422] c04 N71-23185
Feedback integrator with grounded capacitor Patent
[NASA-CASE-XAC-10607] c10 N71-23669
Floating two force component measuring device Patent
[NASA-CASE-XAC-04885] c14 N71-23790

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Control device Patent [NASA-CASE-XAC-10019]	c15 N71-23809	Nondispersive gas analyzing method and apparatus wherein radiation is serially passed through a reference and unknown gas [NASA-CASE-ARC-10308-1]	c06 N72-31141
Means for suppressing or attenuating bending motion of elastic bodies Patent [NASA-CASE-XAC-05632]	c32 N71-23971	Two degree inverted flexure [NASA-CASE-ARC-10345-1]	c15 N73-12488
Device for measuring pressure Patent [NASA-CASE-XAC-04458]	c14 N71-24232	Intumescent paint containing nitrile rubber [NASA-CASE-ARC-10196-1]	c18 N73-13562
Transducer circuit and catheter transducer Patent [NASA-CASE-ARC-10132-1]	c09 N71-24597	Temperature compensated light source using a light emitting diode [NASA-CASE-ARC-10467-1]	c09 N73-14214
Skeletal stressing method and apparatus Patent [NASA-CASE-ARC-10100-1]	c05 N71-24738	Self-tuning bandpass filter [NASA-CASE-ARC-10264-1]	c09 N73-20231
Modified polyurethane foams for fuel-fire Patent [NASA-CASE-ARC-10098-1]	c06 N71-24739	Micrometeoroid analyzer [NASA-CASE-ARC-10443-1]	c14 N73-20477
Deep space monitor communication satellite system Patent [NASA-CASE-XAC-06029-1]	c31 N71-24813	Multiple pass reimaging optical system [NASA-CASE-ARC-10194-1]	c23 N73-20741
Laser fluid velocity detector Patent [NASA-CASE-XAC-10770-1]	c16 N71-24828	Intruder detection system [NASA-CASE-ARC-10097-2]	c07 N73-25160
Transient video signal recording with expanded playback Patent [NASA-CASE-ARC-10003-1]	c09 N71-25866	Interferometric rotation sensor [NASA-CASE-ARC-10278-1]	c14 N73-25463
Thermally cycled magnetometer Patent [NASA-CASE-XAC-03740]	c14 N71-26135	Dual-fuselage aircraft having yawable wing and horizontal stabilizer [NASA-CASE-ARC-10470-1]	c02 N73-26005
Optical machine tool alignment indicator Patent [NASA-CASE-XAC-09489-1]	c15 N71-26673	Temperature controller for a fluid cooled garment [NASA-CASE-ARC-10599-1]	c05 N73-2607
Energy limiter for hydraulic actuators Patent [NASA-CASE-ARC-10131-1]	c15 N71-27754	Visual examination apparatus [NASA-CASE-ARC-10329-1]	c05 N73-2607
Multivibrator circuit with means to prevent false triggering from supply voltage fluctuations Patent [NASA-CASE-ARC-10137-1]	c09 N71-28468	Intumescent composition, foamed product prepared therewith, and process for making same [NASA-CASE-ARC-10304-1]	c18 N73-26572
Locomotion and restraint aid Patent [NASA-CASE-ARC-10153]	c05 N71-28619	Infrared tunable laser [NASA-CASE-ARC-10463-1]	c09 N73-32111
Line following servosystem Patent [NASA-CASE-XAC-00001]	c15 N71-28952	Low power electromagnetic flowmeter providing accurate zero set [NASA-CASE-ARC-10362-1]	c14 N73-32326
Mechanically limited, electrically operated hydraulic valve system for aircraft controls Patent [NASA-CASE-XAC-00048]	c02 N71-29128	Hand-held photomicroscope [NASA-CASE-ARC-10468-1]	c14 N73-33361
Precision rectifier with FET switching means Patent [NASA-CASE-ARC-10101-1]	c09 N71-33109	Alignment apparatus using a laser having a gravitationally sensitive cavity reflector [NASA-CASE-ARC-10444-1]	c16 N73-33397
Solar cell Patent [NASA-CASE-ARC-10050]	c03 N71-33409	Polyimide foam for the thermal insulation and fire protection [NASA-CASE-ARC-10464-1]	c27 N74-12812
Phase shift circuit apparatus [NASA-CASE-ARC-10269-1]	c10 N72-16172	Flexible fire retardant polyisocyanate modified neoprene foam [NASA-CASE-ARC-10180-1]	c27 N74-12819
High intensity radiant energy pulse source having means for opening shutter when light flux has reached a desired level [NASA-CASE-ARC-10178-1]	c09 N72-17152	Heater-mixer for stored fluids [NASA-CASE-ARC-10442-1]	c35 N74-15093
Telemetry actuated switch [NASA-CASE-ARC-10105]	c09 N72-17153	Bimetallic fluid displacement apparatus [NASA-CASE-ARC-10441-1]	c35 N74-15126
Active RC networks [NASA-CASE-ARC-10020]	c10 N72-17172	Automatic real-time pair-feeding system for animals [NASA-CASE-ARC-10302-1]	c51 N74-15778
Apparatus for automatically stabilizing the attitude of a nonguided vehicle [NASA-CASE-ARC-10134]	c30 N72-17873	Overvoltage protection network [NASA-CASE-ARC-10197-1]	c33 N74-17929
Flexible fire retardant foam [NASA-CASE-ARC-10180-1]	c28 N72-20767	Ultrasonic biomedical measuring and recording apparatus [NASA-CASE-ARC-10597-1]	c52 N74-20726
Gas chromatograph injection system [NASA-CASE-ARC-10344-1]	c14 N72-21433	Ultraviolet and thermally stable polymer compositions [NASA-CASE-ARC-10592-1]	c27 N74-21156
Method and apparatus for swept-frequency impedance measurements of welds [NASA-CASE-ARC-10176-1]	c15 N72-21464	High speed shutter [NASA-CASE-ARC-10516-1]	c70 N74-21300
Space suit having improved waist and torso movement [NASA-CASE-ARC-10275-1]	c05 N72-22092	Bio-isolated dc operational amplifier [NASA-CASE-ARC-10596-1]	c33 N74-21851
RF controlled solid state switch [NASA-CASE-ARC-10136-1]	c09 N72-22202	Programmable physiological infusion [NASA-CASE-ARC-10447-1]	c52 N74-22771
Wide range dynamic pressure sensor [NASA-CASE-ARC-10263-1]	c14 N72-22438	Chrono-fluorographic drug detector [NASA-CASE-ARC-10633-1]	c25 N74-26947
Method and apparatus for measuring the damping characteristics of a structure [NASA-CASE-ARC-10154-1]	c14 N72-22440	Intumescent composition, foamed product prepared therewith and process for making same [NASA-CASE-ARC-10304-2]	c27 N74-27037
Magnetic position detection method and apparatus [NASA-CASE-ARC-10179-1]	c21 N72-22619	Photomultiplier circuit including means for rapidly reducing the sensitivity thereof [NASA-CASE-ARC-10593-1]	c33 N74-27682
Fluidic proportional thruster system [NASA-CASE-ARC-10106-1]	c28 N72-22769	G-load measuring and indicator apparatus [NASA-CASE-ARC-10806]	c06 N74-27872
Thermoelectric radiometer utilizing polymer film [NASA-CASE-ARC-10138-1]	c14 N72-24477	Concentric differential gearing arrangement [NASA-CASE-ARC-10462-1]	c37 N74-27901
Polymeric vehicles as carriers for sulfonic acid salt of nitrosubstituted aromatic amines [NASA-CASE-ARC-10325]	c06 N72-25147	Measurement of plasma temperature and density using radiation absorption [NASA-CASE-ARC-10598-1]	c75 N74-30156
Stereoscopic television system and apparatus [NASA-CASE-ARC-10160-1]	c23 N72-27728	Abating exhaust noises in jet engines [NASA-CASE-ARC-10712-1]	c07 N74-33218
Metallic intrusion detector system [NASA-CASE-ARC-10265-1]	c10 N72-28240	Solid medium thermal engine [NASA-CASE-ARC-10461-1]	c44 N74-33379
Apparatus for ionization analysis [NASA-CASE-ARC-10017-1]	c14 N72-29464	Automated analysis of oxidative metabolites [NASA-CASE-ARC-10469-1]	c25 N75-12086

Method of preparing water purification membranes
[NASA-CASE-ARC-10643-1] c25 N75-12087

Method of forming aperture plate for electron microscope
[NASA-CASE-ARC-10448-2] c74 N75-12732

Integrated lift/drag controller for aircraft
[NASA-CASE-ARC-10456-1] c05 N75-12930

Wind tunnel flow generation section
[NASA-CASE-ARC-10710-1] c09 N75-12969

Water purification process
[NASA-CASE-ARC-10643-2] c51 N75-13506

Continuous Fourier transform method and apparatus
[NASA-CASE-ARC-10466-1] c60 N75-13539

Dual wavelength scanning Doppler velocimeter
[NASA-CASE-ARC-10637-1] c35 N75-16783

Signal conditioning circuit apparatus
[NASA-CASE-ARC-10348-1] c33 N75-19518

Diode-gate bridge circuit means
[NASA-CASE-ARC-10364-3] c33 N75-19520

Reversed cowl flap inlet thrust augmentor
[NASA-CASE-ARC-10754-1] c07 N75-24736

Diode-gate bridge circuit means
[NASA-CASE-ARC-10364-2] c33 N75-25041

Rotary plant growth accelerating apparatus
[NASA-CASE-ARC-10722-1] c51 N75-25503

Shoulder harness and lap belt restraint system
[NASA-CASE-ARC-10519-2] c05 N75-25915

Gas chromatograph injection system
[NASA-CASE-ARC-10344-2] c35 N75-26334

Reference apparatus for medical ultrasonic transducer
[NASA-CASE-ARC-10753-1] c54 N75-27760

Electric arc light source having undercut recessed anode
[NASA-CASE-ARC-10266-1] c33 N75-29318

G-load measuring and indicator apparatus
[NASA-CASE-ARC-10806-1] c35 N75-29381

NDIR gas analyzer based on absorption modulation ratios for known and unknown samples
[NASA-CASE-ARC-10802-1] c35 N75-30502

Diatonic infrared gasdynamic laser
[NASA-CASE-ARC-10370-1] c36 N75-31426

Pneumatic load compensating or controlling system
[NASA-CASE-ARC-10907-1] c37 N75-32465

Combined dual scatter, local oscillator laser Doppler velocimeter
[NASA-CASE-ARC-10642-1] c36 N76-14447

Fiber modified polyurethane foam for ballistic protection
[NASA-CASE-ARC-10714-1] c27 N76-15310

Transparent fire resistant polymeric structures
[NASA-CASE-ARC-10813-1] c27 N76-16230

Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131

Modulated hydrogen ion flame detector
[NASA-CASE-ARC-10322-1] c35 N76-18403

Electrical conductivity cell and method for fabricating the same
[NASA-CASE-ARC-10810-1] c33 N76-19339

Method and apparatus for compensating reflection losses in a path length modulated absorption-absorption trace gas detector
[NASA-CASE-ARC-10631-1] c74 N76-20958

Trielectrode capacitive pressure transducer
[NASA-CASE-ARC-10711-2] c33 N76-21390

Nulling device for detection of trace gases by NDIR absorption
[NASA-CASE-ARC-10760-1] c25 N76-22323

Silica reusable surface insulation
[NASA-CASE-ARC-10721-1] c27 N76-22376

Optical alignment device
[NASA-CASE-ARC-10932-1] c74 N76-22993

Vehicle simulator binocular multiplanar visual display system
[NASA-CASE-ARC-10808-1] c09 N76-24280

Readout electrode assembly for measuring biological impedance
[NASA-CASE-ARC-10816-1] c35 N76-24525

Schlieren system employing antiparallel reflector in the forward direction
[NASA-CASE-ARC-10971-1] c09 N76-26224

System for measuring Reynolds in a turbulently flowing fluid
[NASA-CASE-ARC-10755-2] c34 N76-27517

Oblique-wing supersonic aircraft
[NASA-CASE-ARC-10470-3] c05 N76-29217

Accelerometer telemetry system
[NASA-CASE-ARC-10849-1] c17 N76-29347

Miniature ingestible telemeter devices to measure deep-body temperature
[NASA-CASE-ARC-10583-1] c52 N76-29894

Visual examination apparatus
[NASA-CASE-EE-ARC-10329-2] c52 N76-30793

Integrated structure vacuum tube
[NASA-CASE-ARC-10445-1] c31 N76-31365

Ultraviolet and thermally stable polymer compositions
[NASA-CASE-ARC-10592-2] c27 N76-32315

Biomedical ultrasonoscope
[NASA-CASE-ARC-10994-1] c52 N76-33835

Thermistor holder for skin temperature measurements
[NASA-CASE-ARC-10855-1] c52 N77-10780

Spectrally balanced chromatic landing approach lighting system
[NASA-CASE-ARC-10990-1] c04 N77-12031

Smoke generator
[NASA-CASE-ARC-10905-1] c37 N77-13418

Electron microscope aperture system
[NASA-CASE-ARC-10448-3] c35 N77-14408

Liquid cooled brassiere and method of diagnosing malignant tumors therewith
[NASA-CASE-ARC-11007-1] c52 N77-14736

EKG and ultrasonoscope display
[NASA-CASE-ARC-10994-2] c52 N77-15619

Hingeless helicopter rotor with improved stability
[NASA-CASE-ARC-10807-1] c05 N77-17029

The engine air intake system
[NASA-CASE-ARC-10761-1] c07 N77-18154

A reverse osmosis membrane of high urea rejection properties
[NASA-CASE-ARC-10980-1] c27 N77-18265

Spring operated accelerator and constant force spring mechanism therefor
[NASA-CASE-ARC-10898-1] c35 N77-18417

Rotating launch device for a remotely piloted aircraft
[NASA-CASE-ARC-10979-1] c09 N77-19076

Tubular sublimatory evaporator heat sink
[NASA-CASE-ARC-10912-1] c34 N77-19353

Selective data segment monitoring system
[NASA-CASE-ARC-10899-1] c60 N77-19760

All sky pointing attitude control system
[NASA-CASE-ARC-10716-1] c35 N77-20399

Metallic hot wire anemometer
[NASA-CASE-ARC-10911-1] c35 N77-20400

Optical instrument employing reticle having preselected visual response pattern formed thereon
[NASA-CASE-ARC-10976-1] c74 N77-22950

Induction powered biological radiosonde
[NASA-CASE-ARC-11120-1] c52 N77-23743

Abrasion resistant coatings for plastic surfaces
[NASA-CASE-ARC-10915-3] c24 N77-24200

Sampling video compression system
[NASA-CASE-ARC-10984-1] c32 N77-24328

Method for making a hot wire anemometer and product thereof
[NASA-CASE-ARC-10900-1] c35 N77-24454

Pseudo-backscatter laser Doppler velocimeter employing antiparallel-reflector in the forward direction
[NASA-CASE-ARC-10970-1] c36 N77-25501

System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ARC-10974-1] c34 N77-27345

An improved controller arm for a remotely related slave arm
[NASA-CASE-ARC-11052-1] c54 N77-30751

Acoustically swept rotor
[NASA-CASE-ARC-11106-1] c05 N77-31130

Reduction of nitric oxide emissions from a combustor
[NASA-CASE-ARC-10814-2] c25 N77-31260

Twin-capacitive shaft angle encoder with analog output signal
[NASA-CASE-ARC-10897-1] c33 N77-31404

Anthropomorphic master/slave manipulator system
[NASA-CASE-ARC-10756-1] c54 N77-32721

Mechanical energy storage device for hip disarticulation
[NASA-CASE-ARC-10916-1] c52 N78-10686

Indomethacin-antihistamine combination for gastric ulceration control
[NASA-CASE-ARC-11118-1] c52 N78-11692

Fire protection covering for small diameter missiles

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

[NASA-CASE-ARC-11104-1] c15 N78-13110
 Optically selective, acoustically resonant gas
 detecting transducer
 [NASA-CASE-ARC-10639-1] c35 N78-13400
 Intumescent coatings containing
 4,4'-dinitrosulfanilide
 [NASA-CASE-ARC-11042-1] c24 N78-14096
 Automatic multiple-sample applicator and
 electrophoresis apparatus
 [NASA-CASE-ARC-10991-1] c25 N78-14104
 Flow separation detector
 [NASA-CASE-ARC-11046-1] c35 N78-14364
 Honeycomb-laminate composite structure
 [NASA-CASE-ARC-10913-1] c24 N78-15180
 Heat pipe with dual working fluids
 [NASA-CASE-ARC-11098-1] c34 N78-17336
 Multi-chamber controllable heat pipe
 [NASA-CASE-ARC-10199-1] c34 N78-17337
 Walking boot assembly
 [NASA-CASE-ARC-11101-1] c54 N78-17675
 Full color hybrid display for aircraft simulators
 [NASA-CASE-ARC-10903-1] c09 N78-18083
 Spacesuit mobility joints
 [NASA-CASE-ARC-11058-2] c54 N78-18763
 Apparatus for measuring a sorbate dispersed in a
 fluid stream
 [NASA-CASE-ARC-10896-1] c35 N78-19465
 Automatic fluid dispenser
 [NASA-CASE-ARC-10820-1] c35 N78-19466
 Synthesis of multifunction triaryltrifluoroethanes
 [NASA-CASE-ARC-11097-1] c23 N78-22154
 Synthesis of multifunction triaryltrifluoroethanes
 [NASA-CASE-ARC-11097-2] c23 N78-22155
 Catalysts for imide formation from aromatic
 isocyanates and aromatic dianhydrides
 [NASA-CASE-ARC-11107-1] c23 N78-22156
 Sweat collection capsule
 [NASA-CASE-ARC-11031-1] c54 N78-22720
 Intumescent-ablator coatings using endothermic
 fillers
 [NASA-CASE-ARC-11043-1] c24 N78-27180
 Low density bismaleimide-carbon microballoon
 composites
 [NASA-CASE-ARC-11040-2] c24 N78-27184
 Chelate-modified polymers for atmospheric gas
 chromatography
 [NASA-CASE-ARC-11154-1] c27 N78-27275
 Rotary leveling base platform
 [NASA-CASE-ARC-10981-1] c37 N78-27425
 Tread drum for animals
 [NASA-CASE-ARC-10917-1] c51 N78-27733
 Structural wood panels with improved fire
 resistance
 [NASA-CASE-ARC-11174-1] c24 N78-28178
 Polymeric foams from cross-linkable
 poly-n-arylenebenzimidazoles
 [NASA-CASE-ARC-11008-1] c27 N78-31232
 Boron trifluoride coatings for thermoplastic
 materials and method of applying same in glow
 discharge
 [NASA-CASE-ARC-11057-1] c27 N78-31233
 Spacesuit mobility joints
 [NASA-CASE-ARC-11058-1] c54 N78-31735
 Spacesuit torso closure
 [NASA-CASE-ARC-11100-1] c54 N78-31736
 Fibrous refractory composite insulation
 [NASA-CASE-ARC-11169-1] c24 N78-32189
 Process for preparing higher oxides of the
 alkali and alkaline earth metals
 [NASA-CASE-ARC-10992-1] c26 N78-32229
 Reaction cured glass and glass coatings
 [NASA-CASE-ARC-11051-1] c27 N78-32260
 Angle detector
 [NASA-CASE-ARC-11036-1] c35 N78-32395
 Spray coating apparatus having a rotatable
 workpiece holder
 [NASA-CASE-ARC-11110-1] c37 N78-32434
 Process for producing a well-adhered durable
 optical coating on an optical plastic substrate
 [NASA-CASE-ARC-11039-1] c74 N78-32854
 Micro-fluid exchange coupling apparatus
 [NASA-CASE-ARC-11114-1] c52 N78-33717
 Process for the preparation of calcium superoxide
 [NASA-CASE-ARC-11053-1] c25 N79-10162
 Contour detector and data acquisition system for
 the left ventricular outline
 [NASA-CASE-ARC-10985-1] c52 N79-10724
 Ambient cure polyimide foams
 [NASA-CASE-ARC-11170-1] c27 N79-11215

Subcutaneous channeling probe
 [NASA-CASE-ARC-11091-1] c52 N79-11684
 Microelectrophoretic apparatus and process
 [NASA-CASE-ARC-11121-1] c25 N79-14169
 Preparation of dielectric coating of variable
 dielectric constant by plasma polymerization
 [NASA-CASE-ARC-10892-2] c27 N79-14214
 Indomethacin-antihistamine combination for
 gastric ulceration control
 [NASA-CASE-ARC-11118-2] c52 N79-14755
 Electric discharge for treatment of trace
 contaminants
 [NASA-CASE-ARC-10975-1] c33 N79-15245
 Improved subcutaneous electrode structure
 [NASA-CASE-ARC-11117-1] c52 N79-15576
 Low density bismaleimide-carbon microballoon
 composites
 [NASA-CASE-ARC-11040-1] c24 N79-16915
 Constant lift rotor for a heavier than air craft
 [NASA-CASE-ARC-11045-1] c05 N79-17847
 Oxygen post-treatment of plastic surface coated
 with plasma polymerized silicon-containing
 monomers
 [NASA-CASE-ARC-10915-2] c27 N79-18052
 Cryogenic container compound suspension strap
 [NASA-CASE-ARC-11157-1] c31 N79-18087
 Miniature implantable ultrasonic echosonometer
 [NASA-CASE-ARC-11035-1] c52 N79-18580

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. HUGH
 L. DRYDEN FLIGHT RESEARCH CENTER, EDWARDS, CALIF.**

Fifth wheel
 [NASA-CASE-PRC-10081-1] c37 N77-14477
 Window comparator
 [NASA-CASE-PRC-10090-1] c33 N78-18308
 Attaching of strain gages to substrates
 [NASA-CASE-PRC-10093-1] c35 N78-18393
 An annular wing
 [NASA-CASE-PRC-11007-1] c02 N78-19055
 A portable device particularly suited for use in
 starting air-start units for aircraft
 [NASA-CASE-PRC-10113-1] c09 N78-19166
 Air speed and attitude probe
 [NASA-CASE-PRC-11009-1] c06 N78-25088
 A signal attenuator
 [NASA-CASE-PRC-11012-1] c33 N78-28339
 Tow bar for aircraft
 [NASA-CASE-PRC-11022-1] c09 N79-10069
 Wire stripper
 [NASA-CASE-PRC-10111-1] c37 N79-10419
 Antiaircraft system and method employing small
 projectiles
 [NASA-CASE-PRC-11006-1] c99 N79-10995
 Free wing assembly for an aircraft
 [NASA-CASE-PRC-10092-1] c05 N79-12061
 An improved system for use in conducting wake
 investigation for a wing in flight
 [NASA-CASE-PRC-11024-1] c02 N79-17797

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
 ELECTRONICS RESEARCH CENTER, CAMBRIDGE, MASS.**

Method and apparatus for wavelength tuning of
 liquid lasers
 [NASA-CASE-ERC-10187] c16 N69-31343
 Method for the deposition of beta-silicon
 carbide by isoeptaxy
 [NASA-CASE-ERC-10120] c26 N69-33482
 Full flow with shut off and selective drainage
 control valve Patent application
 [NASA-CASE-ERC-10208] c15 N70-10867
 Method for selective gold diffusion of
 monolithic silicon devices and/or circuits
 Patent application
 [NASA-CASE-ERC-10072] c09 N70-11148
 Method and means for an improved electron beam
 scanning system Patent
 [NASA-CASE-ERC-10552] c09 N71-12539
 Apparatus and method for separating a
 semiconductor wafer Patent
 [NASA-CASE-ERC-10138] c26 N71-14354
 Focused image holography with extended sources
 Patent
 [NASA-CASE-ERC-10019] c16 N71-15551
 Recording and reconstructing focused image
 holograms Patent
 [NASA-CASE-ERC-10017] c16 N71-15567
 Sorption vacuum trap Patent
 [NASA-CASE-XER-09519] c14 N71-18483
 Voltage tunable Gunn-type microwave generator
 Patent
 [NASA-CASE-XER-07894] c09 N71-18721

Array phasing device Patent [NASA-CASE-ERC-10046]	c10 N71-18722	Three axis controller Patent [NASA-CASE-XPR-00181]	c21 N70-33279
Parametric microwave noise generator Patent [NASA-CASE-XPR-11019]	c09 N71-23598	Catalyst bed removing tool Patent [NASA-CASE-XPR-00811]	c15 N70-36901
Saturation current protection apparatus for saturable core transformers Patent [NASA-CASE-ERC-10075]	c09 N71-24800	Two-axis controller Patent [NASA-CASE-XPR-04104]	c03 N70-42073
Repetitively pulsed, wavelength selective laser Patent [NASA-CASE-ERC-10178]	c16 N71-24832	Controlled visibility device for an aircraft Patent [NASA-CASE-XPR-04147]	c11 N71-10748
Optical mirror apparatus Patent [NASA-CASE-ERC-10001]	c23 N71-24868	Biomedical electrode arrangement Patent [NASA-CASE-XPR-10856]	c05 N71-11189
Unsaturating saturable core transformer Patent [NASA-CASE-ERC-10125]	c09 N71-24893	Lifting body Patent Application [NASA-CASE-PRC-10063]	c01 N71-12217
Leak detector wherein a probe is monitored with ultraviolet radiation Patent [NASA-CASE-ERC-10034]	c15 N71-24896	Energy management system for glider type vehicle Patent [NASA-CASE-XPR-00756]	c02 N71-13421
Method for detecting leaks in hermetically sealed containers Patent [NASA-CASE-ERC-10045]	c15 N71-24910	Quick attach mechanism Patent [NASA-CASE-XPR-05421]	c15 N71-22994
Satellite aided vehicle avoidance system Patent [NASA-CASE-ERC-10090]	c21 N71-24948	Heat flux measuring system Patent [NASA-CASE-XPR-03802]	c33 N71-23085
Transverse piezoresistance and pinch effect electromechanical transducers Patent [NASA-CASE-ERC-10088]	c26 N71-25490	Threadless fastener apparatus Patent [NASA-CASE-XPR-05302]	c15 N71-23254
A solid state acoustic variable time delay line Patent [NASA-CASE-ERC-10032]	c10 N71-25900	Traversing probe Patent [NASA-CASE-XPR-02007]	c12 N71-24692
Method and means for recording and reconstructing holograms without use of a reference beam Patent [NASA-CASE-ERC-10020]	c16 N71-26154	Layout tool Patent [NASA-CASE-PRC-10005]	c15 N71-26145
Electromechanical control actuator system Patent [NASA-CASE-ERC-10022]	c15 N71-26635	Pulsed excitation voltage circuit for transducers [NASA-CASE-PRC-10036]	c09 N72-22200
Method and apparatus for detecting gross leaks Patent [NASA-CASE-ERC-10033]	c14 N71-26672	Acoustical transducer calibrating system and apparatus [NASA-CASE-PRC-10060-1]	c14 N73-27379
Field ionization electrodes Patent [NASA-CASE-ERC-10013]	c09 N71-26678	Three-axis adjustable loading structure [NASA-CASE-PRC-10051-1]	c35 N74-13129
Voltage regulator Patent [NASA-CASE-ERC-10113]	c09 N71-27053	Terminal guidance system [NASA-CASE-PRC-10049-1]	c04 N74-13420
A multichannel photoionization chamber for absorption analysis Patent [NASA-CASE-ERC-10044-1]	c14 N71-27090	Full wave modulator-demodulator amplifier apparatus [NASA-CASE-PRC-10072-1]	c33 N74-14939
Pressure sensitive transducers Patent [NASA-CASE-ERC-10087]	c14 N71-27334	Rotating raster generator [NASA-CASE-PRC-10071-1]	c32 N74-20813
Constant frequency output two stage induction machine systems Patent [NASA-CASE-ERC-10065]	c09 N71-27364	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. GODDARD INST. FOR SPACE STUDIES, NEW YORK.	
Fluid power transmitting gas bearing Patent [NASA-CASE-ERC-10097]	c15 N71-28465	Apparatus and method for determining the position of a radiant energy source [NASA-CASE-GSC-12147-1]	c35 N77-20410
Color television systems using a single gun color cathode ray tube Patent [NASA-CASE-ERC-10098]	c09 N71-28618	Application of luciferase assay for ATP to antimicrobial drug susceptibility [NASA-CASE-GSC-12039-1]	c51 N77-22794
Ion microprobe mass spectrometer for analyzing fluid materials Patent [NASA-CASE-ERC-10014]	c14 N71-28863	Method for fabricating a mass spectrometer inlet leak [NASA-CASE-GSC-12077-1]	c35 N77-24455
Orifice gross leak tester Patent [NASA-CASE-ERC-10150]	c14 N71-28992	Length controlled stabilized mode-lock Nd:YAG laser [NASA-CASE-GSC-11571-1]	c36 N77-25499
Device for measuring light scattering wherein the measuring beam is successively reflected between a pair of parallel reflectors Patent [NASA-CASE-XPR-11203]	c14 N71-28994	Three phase full wave dc motor decoder [NASA-CASE-GSC-11824-1]	c33 N77-26386
Quasi-optical microwave component Patent [NASA-CASE-ERC-10011]	c07 N71-29065	A cervix-to-rectum measuring device in a radiation applicator for use in the treatment of cervical cancer [NASA-CASE-GSC-12081-2]	c52 N77-26796
Multiple hologram recording and readout system Patent [NASA-CASE-ERC-10151]	c16 N71-29131	Gregorian all-reflective optical system [NASA-CASE-GSC-12058-1]	c74 N77-26942
Plasma fluidic hybrid display Patent [NASA-CASE-ERC-10100]	c09 N71-33519	Opto-mechanical subsystem with temperature compensation through isothermal design [NASA-CASE-GSC-12059-1]	c35 N77-27366
Optical systems having spatially invariant outputs [NASA-CASE-ERC-10248]	c14 N72-17323	Controlled caging and uncaging mechanism [NASA-CASE-GSC-11063-1]	c37 N77-27400
Method of detecting impending saturation of magnetic cores [NASA-CASE-ERC-10089]	c23 N72-17747	Locking mechanism for orthopedic braces [NASA-CASE-GSC-12082-2]	c52 N77-27694
Improved satellite aided vehicle avoidance system [NASA-CASE-ERC-10419]	c21 N72-21631	Wideband heterodyne receiver for laser communication system [NASA-CASE-GSC-12053-1]	c32 N77-28346
Logarithmic function generator utilizing an exponentially varying signal in an inverse manner [NASA-CASE-ERC-10267]	c09 N72-23173	Method and apparatus for producing an image from a transparent object [NASA-CASE-GSC-11989-1]	c74 N77-28932
Method and apparatus for limiting field emission current [NASA-CASE-ERC-10015-2]	c10 N72-27246	Pseudo noise code and data transmission method and apparatus [NASA-CASE-GSC-12017-1]	c32 N77-30308
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. FLIGHT RESEARCH CENTER, EDWARDS, CALIF.		Speech analyzer [NASA-CASE-GSC-11898-1]	c32 N77-30309
Rocket chamber leak test fixture [NASA-CASE-XPR-09479]	c14 N69-27503	Automatic transponder [NASA-CASE-GSC-12075-1]	c32 N77-31350
		An interleaving device [NASA-CASE-GSC-12111-2]	c60 N77-31800
		Method of treating the surface of a glass member [NASA-CASE-GSC-12110-1]	c27 N77-32308
		Flat-plate heat pipe [NASA-CASE-GSC-11998-1]	c34 N77-32413

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Fluid sampling device
[NASA-CASE-GSC-12143-1] c35 N77-32456

Analog to digital converter for two-dimensional
radiant energy array computers
[NASA-CASE-GSC-11839-3] c60 N77-32731

A laser apparatus
[NASA-CASE-GSC-12237-1] c36 N78-10445

Remote sensing of vegetation and soil using
microwave ellipsometry
[NASA-CASE-GSC-11976-1] c43 N78-10529

Memory device for two-dimensional radiant energy
array computers
[NASA-CASE-GSC-11839-2] c60 N78-10709

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
GODDARD SPACE FLIGHT CENTER, GREENBELT, MD.

Regulated dc to dc converter
[NASA-CASE-XGS-03429] c03 N69-21330

Apparatus for measuring swelling characteristics
of membranes
[NASA-CASE-XGS-03865] c14 N69-21363

Tumbler system to provide random motion
[NASA-CASE-XGS-02437] c15 N69-21472

Automatic acquisition system for phase-lock loop
[NASA-CASE-XGS-04994] c09 N69-21543

Low power drain seal-conductor circuit
[NASA-CASE-XGS-04999] c09 N69-24317

Spacecraft battery seals
[NASA-CASE-XGS-03864] c15 N69-24320

Scanning aspect sensor employing an apertured
disc and a commutator
[NASA-CASE-XGS-08266] c14 N69-27432

Monopulse system with an electronic scanner
[NASA-CASE-XGS-05582] c07 N69-27460

Ring counter
[NASA-CASE-XGS-03095] c09 N69-27463

Retrodirective optical system
[NASA-CASE-XGS-04480] c16 N69-27491

Time division multiplex system
[NASA-CASE-XGS-05918] c07 N69-39974

Doppler frequency spread correction device for
multiplex transmissions
[NASA-CASE-XGS-02749] c07 N69-39978

Alkali-metal silicate protective coating
[NASA-CASE-XGS-04119] c18 N69-39979

Device for measuring electron-beam intensities
and for subjecting materials to electron
irradiation in an electron microscope
[NASA-CASE-XGS-01725] c14 N69-39982

Light sensitive digital aspect sensor Patent
[NASA-CASE-XGS-00359] c14 N70-34158

Method and apparatus for determining satellite
orientation utilizing spatial energy sources
Patent
[NASA-CASE-XGS-00466] c21 N70-34297

Binary magnetic memory device Patent
[NASA-CASE-XGS-00174] c08 N70-34743

Full binary adder Patent
[NASA-CASE-XGS-00689] c08 N70-34787

Ultra-long monostable multivibrator employing
bistable semiconductor switch to allow
charging of timing circuit Patent
[NASA-CASE-XGS-00381] c09 N70-34819

Space and atmospheric reentry vehicle Patent
[NASA-CASE-XGS-00260] c31 N70-37924

Variable frequency magnetic multivibrator Patent
[NASA-CASE-XGS-00458] c09 N70-38604

Switching mechanism with energy storage means
Patent
[NASA-CASE-XGS-00473] c03 N70-38713

Variable frequency magnetic multivibrator Patent
[NASA-CASE-XGS-00131] c09 N70-38995

Stretch de-spin mechanism Patent
[NASA-CASE-XGS-00619] c30 N70-40016

Folding boom assembly Patent
[NASA-CASE-XGS-00938] c32 N70-41367

Cryogenic connector for vacuum use Patent
[NASA-CASE-XGS-02441] c15 N70-41629

Endless tape cartridge Patent
[NASA-CASE-XGS-00769] c14 N70-41647

Apparatus for producing three-dimensional
recordings of fluorescence spectra Patent
[NASA-CASE-XGS-01231] c14 N70-41676

Method and apparatus for determining
electromagnetic characteristics of large
surface area passive reflectors Patent
[NASA-CASE-XGS-02608] c07 N70-41678

Prevention of pressure build-up in
electrochemical cells Patent
[NASA-CASE-XGS-01419] c03 N70-41864

Variable time constant smoothing circuit Patent
[NASA-CASE-XGS-01983] c10 N70-41964

Endless tape transport mechanism Patent
[NASA-CASE-XGS-01223] c07 N71-10609

Reversible ring counter employing cascaded
single SCR stages Patent
[NASA-CASE-XGS-01473] c09 N71-10673

Electronic beam switching commutator Patent
[NASA-CASE-XGS-01451] c09 N71-10677

Sun tracker with rotatable plane-parallel plate
and two photocells Patent
[NASA-CASE-XGS-01159] c21 N71-10678

Non-magnetic battery case Patent
[NASA-CASE-XGS-00886] c03 N71-11053

Interconnection of solar cells Patent
[NASA-CASE-XGS-01475] c03 N71-11058

Frequency shift keyed demodulator Patent
[NASA-CASE-XGS-02889] c07 N71-11282

Bi-polar phase detector and corrector for split
phase PCM data signals Patent
[NASA-CASE-XGS-01590] c07 N71-12392

Data processor having multiple sections
activated at different times by selective
power coupling to the sections Patent
[NASA-CASE-XGS-04767] c08 N71-12494

Position location system and method Patent
[NASA-CASE-GSC-10087-2] c21 N71-13958

Fire resistant coating composition Patent
[NASA-CASE-GSC-10072] c18 N71-14014

Passively regulated water electrolysis rocket
engine Patent
[NASA-CASE-XGS-08729] c28 N71-14044

Attitude control system Patent
[NASA-CASE-XGS-04393] c21 N71-14159

Retrodirective modulator Patent
[NASA-CASE-GSC-10062] c14 N71-15605

Spacecraft attitude detection system by stellar
reference Patent
[NASA-CASE-XGS-03431] c21 N71-15642

Cartwheel satellite synchronization system Patent
[NASA-CASE-XGS-05579] c31 N71-15676

Wide range linear fluxgate magnetometer Patent
[NASA-CASE-XGS-01587] c14 N71-15962

Low friction magnetic recording tape Patent
[NASA-CASE-XGS-00373] c23 N71-15978

Method for etching copper Patent
[NASA-CASE-XGS-06306] c17 N71-16044

Bacteriostatic conformal coating and methods of
application Patent
[NASA-CASE-GSC-10007] c18 N71-16046

Serrodyne frequency converter re-entrant
amplifier system Patent
[NASA-CASE-XGS-01022] c07 N71-16088

Position location and data collection system and
method Patent
[NASA-CASE-GSC-10083-1] c30 N71-16090

Position sensing device employing misaligned
magnetic field generating and detecting
apparatus Patent
[NASA-CASE-XGS-07514] c23 N71-16099

Optical tracker having overlapping reticles on
parallel axes Patent
[NASA-CASE-XGS-05715] c23 N71-16100

Self-erecting reflector Patent
[NASA-CASE-XGS-09190] c31 N71-16102

Dust particle injector for hypervelocity
accelerators Patent
[NASA-CASE-XGS-06628] c24 N71-16213

Ellipsoidal mirror reflectometer including means
for averaging the radiation reflected from the
sample Patent
[NASA-CASE-XGS-05291] c23 N71-16341

Angular position and velocity sensing apparatus
Patent
[NASA-CASE-XGS-05680] c14 N71-17585

Apparatus for controlling the velocity of an
electromechanical drive for interferometers
and the like Patent
[NASA-CASE-XGS-03532] c14 N71-17627

Omni-directional anisotropic molecular trap Patent
[NASA-CASE-XGS-00783] c30 N71-17788

Method of making tubes Patent
[NASA-CASE-XGS-04175] c15 N71-18579

Pulse-type magnetic core memory element circuit
with blocking oscillator feedback Patent
[NASA-CASE-XGS-03303] c08 N71-18595

Ripple add and ripple subtract binary counters
Patent
[NASA-CASE-XGS-04766] c08 N71-18602

Computing apparatus Patent
[NASA-CASE-XGS-04765] c08 N71-18693

Stepping motor control circuit Patent
[NASA-CASE-GSC-10366-1] c10 N71-18772

Traffic control system and method Patent
[NASA-CASE-GSC-10087-1] c02 N71-19287

Apparatus for measuring current flow Patent
[NASA-CASE-XGS-02439] c14 N71-19431

Synchronous counter Patent
[NASA-CASE-XGS-02440] c08 N71-19432

Wide range data compression system Patent
[NASA-CASE-XGS-02612] c08 N71-19435

Apparatus for computing square roots Patent
[NASA-CASE-XGS-04768] c08 N71-19437

Method and apparatus for battery charge control Patent
[NASA-CASE-XGS-05432] c03 N71-19438

Stable amplifier having a stable quiescent point Patent
[NASA-CASE-XGS-02812] c09 N71-19466

Tracking antenna system Patent
[NASA-CASE-GSC-10553-1] c07 N71-19854

Electrochemical coulometer and method of forming same Patent
[NASA-CASE-XGS-05434] c03 N71-20491

Display for binary characters Patent
[NASA-CASE-XGS-04987] c08 N71-20571

Amplifier clamping circuit for horizon scanner Patent
[NASA-CASE-XGS-01784] c10 N71-20782

Diversity receiving system with diversity phase lock Patent
[NASA-CASE-XGS-01222] c10 N71-20841

Signal detection and tracking apparatus Patent
[NASA-CASE-XGS-03502] c10 N71-20852

Polarization diversity monopulse tracking receiver Patent
[NASA-CASE-XGS-03501] c09 N71-20864

System for recording and reproducing pulse code modulated data Patent
[NASA-CASE-XGS-01021] c08 N71-21042

Satellite appendage tie down cord Patent
[NASA-CASE-XGS-02554] c31 N71-21064

Reaction wheel scanner Patent
[NASA-CASE-XGS-02629] c14 N71-21082

Nonmagnetic, explosive actuated indexing device Patent
[NASA-CASE-XGS-02422] c15 N71-21529

Bidirectional step torque filter with zero backlash characteristic Patent
[NASA-CASE-XGS-04227] c15 N71-21744

Conforming polisher for aspheric surface of revolution Patent
[NASA-CASE-XGS-02884] c15 N71-22705

Precision thrust gage Patent
[NASA-CASE-XGS-02319] c14 N71-22965

Sealing device for an electrochemical cell Patent
[NASA-CASE-XGS-02630] c03 N71-22974

Rotary bead dropper and selector for testing micrometeorite detectors Patent
[NASA-CASE-XGS-03304] c09 N71-22988

Moment of inertia test fixture Patent
[NASA-CASE-XGS-01023] c14 N71-22992

Fluid flow meter with comparator reference means Patent
[NASA-CASE-XGS-01331] c14 N71-22996

Foamed in place ceramic refractory insulating material Patent
[NASA-CASE-XGS-02435] c18 N71-22998

Digital telemetry system Patent
[NASA-CASE-XGS-01812] c07 N71-23001

Bonded elastomeric seal for electrochemical cells Patent
[NASA-CASE-XGS-02631] c03 N71-23006

Apparatus providing a directive field pattern and attitude sensing of a spin stabilized satellite Patent
[NASA-CASE-XGS-02607] c31 N71-23009

Complementary regenerative switch Patent
[NASA-CASE-XGS-02751] c09 N71-23015

Solid state pulse generator with constant output width, for variable input width, in nanosecond range Patent
[NASA-CASE-XGS-03427] c10 N71-23029

Sidereal frequency generator Patent
[NASA-CASE-XGS-02610] c14 N71-23174

Solar cell and circuit array and process for nullifying magnetic fields Patent
[NASA-CASE-XGS-03390] c03 N71-23187

Passive synchronized spike generator with high input impedance and low output impedance and capacitor power supply Patent
[NASA-CASE-XGS-03632] c09 N71-23311

Sealed electrochemical cell provided with a flexible casing Patent
[NASA-CASE-XGS-01513] c03 N71-23336

Digitally controlled frequency synthesizer Patent
[NASA-CASE-XGS-02317] c09 N71-23525

Radio frequency coaxial high pass filter Patent
[NASA-CASE-XGS-01418] c09 N71-23573

Apparatus for phase stability determination Patent
[NASA-CASE-XGS-01118] c10 N71-23662

Tape recorder Patent
[NASA-CASE-XGS-08259] c14 N71-23698

Balance torque meter Patent
[NASA-CASE-XGS-01013] c14 N71-23725

Mechanical actuator Patent
[NASA-CASE-XGS-04548] c15 N71-24045

Selective plating of etched circuits without removing previous plating Patent
[NASA-CASE-XGS-03120] c15 N71-24047

Alkali metal silicate protective coating Patent
[NASA-CASE-XGS-04799] c18 N71-24183

Strain gauge measuring techniques Patent
[NASA-CASE-XGS-04478] c14 N71-24233

Electromagnetic polarization systems and methods Patent
[NASA-CASE-GSC-10021-1] c09 N71-24595

Redundant actuating mechanism Patent
[NASA-CASE-XGS-08718] c15 N71-24600

Satellite communication system and method Patent
[NASA-CASE-GSC-10118-1] c07 N71-24621

Programmable telemetry system Patent
[NASA-CASE-GSC-10131-1] c07 N71-24624

Coulometer and third electrode battery charging circuit Patent
[NASA-CASE-GSC-10487-1] c03 N71-24719

Electronic scanning of 2-channel monopulse patterns Patent
[NASA-CASE-GSC-10299-1] c09 N71-24804

Annular slit colloid thruster Patent
[NASA-CASE-XGS-10709-1] c28 N71-25213

Voltage to frequency converter Patent
[NASA-CASE-GSC-10022-1] c10 N71-25882

Direct current motor with stationary armature and field Patent
[NASA-CASE-XGS-05290] c09 N71-25999

Buck boost voltage regulation circuit Patent
[NASA-CASE-GSC-10735-1] c10 N71-26085

Adaptive system and method for signal generation Patent
[NASA-CASE-GSC-11367] c10 N71-26374

Control apparatus for applying pulses of selectively predetermined duration to a sequence of loads Patent
[NASA-CASE-XGS-04224] c10 N71-26418

Turn on transient limiter Patent
[NASA-CASE-GSC-10413] c10 N71-26531

Voltage regulator with plural parallel power source sections Patent
[NASA-CASE-GSC-10891-1] c10 N71-26626

Method for generating ultra-precise angles Patent
[NASA-CASE-XGS-04173] c19 N71-26674

Resettable monostable pulse generator Patent
[NASA-CASE-GSC-11139] c09 N71-27016

Micro-pound extended range thrust stand Patent
[NASA-CASE-GSC-10710-1] c28 N71-27094

Synchronous dc direct drive system Patent
[NASA-CASE-GSC-10065-1] c10 N71-27136

Antenna array at focal plane of reflector with coupling network for beam switching Patent
[NASA-CASE-GSC-10220-1] c07 N71-27233

Gravity gradient attitude control system Patent
[NASA-CASE-GSC-10555-1] c21 N71-27324

Segmented superconducting magnet for a broadband traveling wave maser Patent
[NASA-CASE-XGS-10518] c16 N71-28554

Millimeter wave antenna system Patent Application
[NASA-CASE-GSC-10949-1] c07 N71-28965

Sampled data controller Patent
[NASA-CASE-GSC-10554-1] c08 N71-29033

Variable digital processor including a register for shifting and rotating bits in either direction Patent
[NASA-CASE-GSC-10186] c08 N71-33110

Combustion products generating and metering device
[NASA-CASE-GSC-11095-1] c14 N71-10375

Analog spatial maneuver computer [NASA-CASE-GSC-10880-1]	c08 N72-11172	Method and system for ejecting fairing sections from a rocket vehicle [NASA-CASE-GSC-10590-1]	c31 N73-14853
Helical recorder arrangement for multiple channel recording on both sides of the tape [NASA-CASE-GSC-10614-1]	c09 N72-11224	Plural beam antenna [NASA-CASE-GSC-11013-1]	c09 N73-19234
Method and apparatus for eliminating coherent noise in a coherent energy imaging system without destroying spatial coherence [NASA-CASE-GSC-11133-1]	c23 N72-11568	Star tracking reticles and process for the production thereof [NASA-CASE-GSC-11188-2]	c21 N73-19630
Position location system and method [NASA-CASE-GSC-10087-3]	c07 N72-12080	Delayed simultaneous release mechanism [NASA-CASE-GSC-10814-1]	c03 N73-20039
Facsimile video remodulation network [NASA-CASE-GSC-10185-1]	c07 N72-12081	Doppler compensation by shifting transmitted object frequency within limits [NASA-CASE-GSC-10087-4]	c07 N73-20174
Frangible electrochemical cell [NASA-CASE-XGS-10010]	c03 N72-15986	Signal-to-noise ratio determination circuit [NASA-CASE-GSC-11239-1]	c10 N73-25241
Caterpillar micro positioner [NASA-CASE-GSC-10780-1]	c14 N72-16283	Mutation damper [NASA-CASE-GSC-11205-1]	c15 N73-25513
Minimech self-deploying boom mechanism [NASA-CASE-GSC-10566-1]	c15 N72-18477	Low outgassing polydimethylsiloxane material and preparation thereof [NASA-CASE-GSC-11358-1]	c06 N73-26100
Heated porous plug microthruster [NASA-CASE-GSC-10640-1]	c28 N72-18766	Method of detecting and counting bacteria in body fluids [NASA-CASE-GSC-11092-2]	c04 N73-27052
Optimum performance spacecraft solar cell system [NASA-CASE-GSC-10669-1]	c03 N72-20031	Protein sterilization method of firefly luciferase using reduced pressure and molecular sieves [NASA-CASE-GSC-10225-1]	c06 N73-27086
Monostable multivibrator [NASA-CASE-GSC-10082-1]	c10 N72-20221	Process for making RF shielded cable connector assemblies and the products formed thereby [NASA-CASE-GSC-11215-1]	c09 N73-28083
Roll alignment detector [NASA-CASE-GSC-10514-1]	c14 N72-20379	Device for determining relative angular position between a spacecraft and a radiation emitting celestial body [NASA-CASE-GSC-11444-1]	c14 N73-28490
Cosmic dust sensor [NASA-CASE-GSC-10503-1]	c14 N72-20381	Microscope multi-angle, reflection, viewing adaptor and photographic recording system [NASA-CASE-GSC-11690-1]	c14 N73-28499
Solenoid valve including guide for armature and valve member [NASA-CASE-GSC-10607-1]	c15 N72-20442	Pastener stretcher [NASA-CASE-GSC-11149-1]	c15 N73-30457
Fast response low power drain logic circuits [NASA-CASE-GSC-10878-1]	c10 N72-22236	Spacecraft attitude sensor [NASA-CASE-GSC-10890-1]	c21 N73-30640
Trap for preventing diffusion pump backstreaming [NASA-CASE-GSC-10518-1]	c15 N72-22489	Automatic instrument for chemical processing to detect microorganism in biological samples by measuring light reactions [NASA-CASE-GSC-11169-2]	c05 N73-32011
Resistance soldering apparatus [NASA-CASE-GSC-10913]	c15 N72-22491	Star tracking reticles [NASA-CASE-GSC-11188-1]	c14 N73-32320
Optical system support apparatus [NASA-CASE-XBR-07896-2]	c23 N72-22673	Peen plating [NASA-CASE-GSC-11163-1]	c15 N73-32360
SCR lamp driver [NASA-CASE-GSC-10221-1]	c09 N72-23171	Recorder/processor apparatus [NASA-CASE-GSC-11553-1]	c35 N74-15831
Potassium silicate zinc coatings [NASA-CASE-GSC-10361-1]	c18 N72-23581	Method of making porous conductive supports for electrodes [NASA-CASE-GSC-11367-1]	c44 N74-19692
Synchronous orbit battery cyclor [NASA-CASE-GSC-11211-1]	c03 N72-25020	Formation of star tracking reticles [NASA-CASE-GSC-11188-3]	c74 N74-20008
Flavin coenzyme assay [NASA-CASE-GSC-10565-1]	c06 N72-25149	Radiation hardening of MOS devices by boron [NASA-CASE-GSC-11425-1]	c76 N74-20329
Location identification system [NASA-CASE-ERC-10324]	c07 N72-25173	Amplitude steered array [NASA-CASE-GSC-11446-1]	c33 N74-20860
A dc to ac to dc converter having transistor synchronous rectifiers [NASA-CASE-GSC-11126-1]	c09 N72-25253	Rotary solenoid shutter drive assembly and rotary inertia damper and stop plate assembly [NASA-CASE-GSC-11560-1]	c33 N74-20861
Tungsten contacts on silicon substrates [NASA-CASE-GSC-10695-1]	c09 N72-25259	Ultra-stable oscillator with complementary transistors [NASA-CASE-GSC-11513-1]	c33 N74-20862
Bacterial contamination monitor [NASA-CASE-GSC-10879-1]	c14 N72-25413	High efficiency multifrequency feed [NASA-CASE-GSC-11909]	c32 N74-20863
Honeycomb panels formed of minimal surface periodic tubule layers [NASA-CASE-ERC-10364]	c18 N72-25540	Turnstile slot antenna [NASA-CASE-GSC-11428-1]	c32 N74-20864
Honeycomb core structures of minimal surface tubule sections [NASA-CASE-ERC-10363]	c18 N72-25541	Method and apparatus for checking fire detectors [NASA-CASE-GSC-11600-1]	c35 N74-21019
Gunn-type solid state devices [NASA-CASE-XBR-07895]	c26 N72-25679	Long range laser traversing system [NASA-CASE-GSC-11262-1]	c36 N74-21091
Use of unilluminated solar cells as shunt diodes [NASA-CASE-GSC-10344-1]	c03 N72-27053	Method and apparatus for optically monitoring the angular position of a rotating mirror [NASA-CASE-GSC-11353-1]	c74 N74-21304
Active tuned circuit [NASA-CASE-GSC-11340-1]	c10 N72-33230	Image tube [NASA-CASE-GSC-11602-1]	c33 N74-21850
Electric motive machine including magnetic bearing [NASA-CASE-XGS-07805]	c15 N72-33476	Apparatus for controlling the temperature of balloon-borne equipment [NASA-CASE-GSC-11620-1]	c34 N74-23039
Cosmic dust or other similar outer space particles impact location detector [NASA-CASE-GSC-11291-1]	c25 N72-33696	Coaxial anode wire for gas radiation counters [NASA-CASE-GSC-11492-1]	c35 N74-26949
Method and apparatus for determining the contents of contained gas samples [NASA-CASE-GSC-10903-1]	c14 N73-12444	Arterial pulse wave pressure transducer [NASA-CASE-GSC-11531-1]	c52 N74-27566
System for stabilizing torque between a balloon and gondola [NASA-CASE-GSC-11077-1]	c02 N73-13008	Heat flow calorimeter [NASA-CASE-GSC-11434-1]	c34 N74-27859
Diffuse reflective coating [NASA-CASE-GSC-11214-1]	c06 N73-13128		
Data processor with conditionally supplied clock signals [NASA-CASE-GSC-10975-1]	c08 N73-13187		
Apparatus for vibrational testing of articles [NASA-CASE-GSC-11302-1]	c14 N73-13416		

Air conditioning system and component therefore distributing air flow from opposite directions
[NASA-CASE-GSC-11445-1] c31 N74-27902

Passive dual spin misalignment compensators
[NASA-CASE-GSC-11479-1] c35 N74-28097

Star scanner
[NASA-CASE-GSC-11569-1] c89 N74-30886

Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

Structural heat pipe
[NASA-CASE-GSC-11619-1] c34 N75-12222

Remote platform power conserving system
[NASA-CASE-GSC-11182-1] c15 N75-13007

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-1] c37 N75-15992

Magnetic bearing
[NASA-CASE-GSC-11079-1] c37 N75-18574

Dish antenna having switchable beamwidth
[NASA-CASE-GSC-11760-1] c33 N75-19516

X-Y alphanumeric character generator for oscilloscopes
[NASA-CASE-GSC-11582-1] c33 N75-19517

Controllable high voltage source having fast settling time
[NASA-CASE-GSC-11844-1] c33 N75-19522

Dually mode locked Nd:YAG laser
[NASA-CASE-GSC-11746-1] c36 N75-19654

Self-regulating proportionally controlled heating apparatus and technique
[NASA-CASE-GSC-11752-1] c77 N75-20140

Low speed phaselock speed control system
[NASA-CASE-GSC-11127-1] c09 N75-24758

Modulator for tone and binary signals
[NASA-CASE-GSC-11743-1] c32 N75-24981

Digital phase-locked loop
[NASA-CASE-GSC-11623-1] c33 N75-25040

adiation hardening of MOS devices by boron
[NASA-CASE-GSC-11425-2] c76 N75-25730

Correlation type phase detector
[NASA-CASE-GSC-11744-1] c33 N75-26243

Process for making sheets with parallel pores of uniform size
[NASA-CASE-GSC-10984-1] c37 N75-26371

Impact position detector for outer space particles
[NASA-CASE-GSC-11829-1] c35 N75-27331

Single frequency, two feed dish antenna having switchable beamwidth
[NASA-CASE-GSC-11968-1] c32 N76-15329

Micrometeoroid velocity and trajectory analyzer
[NASA-CASE-GSC-11892-1] c35 N76-15433

Atomic standard with variable storage volume
[NASA-CASE-GSC-11895-1] c35 N76-15436

High voltage distributor
[NASA-CASE-GSC-11849-1] c33 N76-16332

Moving particle composition analyzer
[NASA-CASE-GSC-11889-1] c35 N76-16393

Variable beamwidth antenna
[NASA-CASE-GSC-11862-1] c32 N76-18295

Automatic character skew and spacing checking network
[NASA-CASE-GSC-11925-1] c33 N76-18353

Axially and radially controllable magnetic bearing
[NASA-CASE-GSC-11551-1] c37 N76-18459

Apparatus for simulating optical transmission links
[NASA-CASE-GSC-11877-1] c74 N76-18913

Bonding of sapphire to sapphire by eutectic mixture of aluminum oxide and zirconium oxide
[NASA-CASE-GSC-11577-3] c24 N76-19234

Camera arrangement
[NASA-CASE-GSC-12032-2] c35 N76-19408

Telemetry synchronizer
[NASA-CASE-GSC-11868-1] c17 N76-22245

Locking mechanism for orthopedic braces
[NASA-CASE-GSC-12082-1] c54 N76-22914

Ultraviolet light reflective coating
[NASA-CASE-GSC-11786-1] c24 N76-24363

Switchable beamwidth monopulse method and system
[NASA-CASE-GSC-11924-1] c33 N76-27472

Fabrication of polycrystalline solar cells on low-cost substrates
[NASA-CASE-GSC-12022-1] c44 N76-28635

Method of detecting and counting bacteria
[NASA-CASE-GSC-11917-2] c51 N76-29891

Polarization compensator for optical communications
[NASA-CASE-GSC-11782-1] c74 N76-30053

Static coefficient test method and apparatus
[NASA-CASE-GSC-11893-1] c35 N76-31489

Digital plus analog output encoder
[NASA-CASE-GSC-12115-1] c62 N76-31946

Method and apparatus for neutralizing potentials induced on spacecraft surfaces
[NASA-CASE-GSC-11963-1] c33 N77-10429

Inrush current limiter
[NASA-CASE-GSC-11789-1] c33 N77-14333

Linear phase demodulator including a phase locked loop with auxiliary feedback loop
[NASA-CASE-GSC-12018-1] c33 N77-14334

Reel safety brake
[NASA-CASE-GSC-11960-1] c37 N77-14479

Two-dimensional radiant energy array computers and computing devices
[NASA-CASE-GSC-11839-1] c60 N77-14751

Magnetic bearing system
[NASA-CASE-GSC-11978-1] c37 N77-17464

Method and apparatus for measuring web material wound on a reel
[NASA-CASE-GSC-11902-1] c38 N77-17495

Cyclical bi-directional rotary actuator
[NASA-CASE-GSC-11883-1] c37 N77-19458

Thermal control canister
[NASA-CASE-GSC-12253-1] c34 N78-13380

The 2 deg/90 deg laboratory scattering photometer
[NASA-CASE-GSC-12088-1] c74 N78-13874

Alkali-metal silicate binders and methods of manufacture
[NASA-CASE-GSC-12303-1] c27 N78-17217

Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295

Shunt regulation electric power system
[NASA-CASE-GSC-10135] c33 N78-17296

Voltage feed through apparatus having reduced partial discharge
[NASA-CASE-GSC-12347-1] c33 N78-17297

Binary to binary coded decimal converter
[NASA-CASE-GSC-12044-1] c60 N78-17691

Microwave dichroic plate
[NASA-CASE-GSC-12171-1] c33 N78-18313

Magnifying image intensifier
[NASA-CASE-GSC-12010-1] c74 N78-18905

Shock isolator for operating a diode laser and closed-cycle refrigerator
[NASA-CASE-GSC-12297-1] c37 N78-19515

Distributed-switch dicke radiometer
[NASA-CASE-GSC-12219-1] c43 N78-22436

Rapid, quantitative determination of bacteria in water
[NASA-CASE-GSC-12158-1] c51 N78-22585

Active nutation controller
[NASA-CASE-GSC-12273-1] c18 N78-23141

Method and apparatus for holding two separate metal pieces together for welding
[NASA-CASE-GSC-12318-1] c37 N78-23434

Method and apparatus for slicing crystals
[NASA-CASE-GSC-12291-1] c31 N78-24386

Energy storage apparatus
[NASA-CASE-GSC-12030-1] c44 N78-24608

Process for utilizing low-cost graphite substrates for polycrystalline solar cells
[NASA-CASE-GSC-12022-2] c44 N78-24609

Toggle mechanism for pinching metal tubes
[NASA-CASE-GSC-12274-1] c37 N78-25428

Coupling device for moving vehicles
[NASA-CASE-GSC-12322-1] c37 N78-25429

Method of forming a sharp edge on an optical device
[NASA-CASE-GSC-12348-1] c74 N78-29902

Actuator mechanism
[NASA-CASE-GSC-11883-2] c37 N78-31426

Quadrature demodulation
[NASA-CASE-GSC-12137-1] c33 N78-32338

Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339

Wide power range microwave feedback controller
[NASA-CASE-GSC-12146-1] c33 N78-32340

Belt for coupling driven members
[NASA-CASE-GSC-12276-1] c37 N78-32429

Belt for transmitting power from a driving member to a driven member
[NASA-CASE-GSC-12289-1] c37 N78-32435

Antenna deployment mechanism
[NASA-CASE-GSC-12331-1] c37 N78-32436

Method and apparatus for splitting a beam of energy
[NASA-CASE-GSC-12083-1] c73 N78-32848

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD.

Diffractoid grating configuration for X-ray and ultraviolet focusing
 [NASA-CASE-GSC-12357-1] c74 N78-32857
 Time domain phase measuring apparatus
 [NASA-CASE-GSC-12228-1] c33 N79-10338
 System for and method of freezing biological tissue
 [NASA-CASE-GSC-12173-1] c51 N79-10694
 Systems and methods for determining radio frequency interference
 [NASA-CASE-GSC-12150-1] c32 N79-11265
 Complementary DMOS-VMOS integrated circuit structure
 [NASA-CASE-GSC-12190-1] c33 N79-12321
 Portable appliance security apparatus
 [NASA-CASE-GSC-12399-1] c33 N79-13261
 Time delay and integration detectors using charge transfer devices
 [NASA-CASE-GSC-12324-1] c33 N79-13262
 Electrically conductive thermal control coatings
 [NASA-CASE-GSC-12207-1] c24 N79-14156
 A system for displaying at a remote station data generated at a central station and for powering the remote station from the central station
 [NASA-CASE-GSC-12411-1] c33 N79-14308
 External bulb variable volume maser
 [NASA-CASE-GSC-12334-1] c36 N79-14362
 Determination of antimicrobial susceptibilities on infected urines without isolation
 [NASA-CASE-GSC-12046-1] c52 N79-14750
 Partial polarizer filter
 [NASA-CASE-GSC-12225-1] c74 N79-14891
 Low thrust monopropellant engine
 [NASA-CASE-GSC-12194-2] c20 N79-15151
 Thermal compensator for closed-cycle helium refrigerator
 [NASA-CASE-GSC-12168-1] c31 N79-17029
 A method and alloy for making electrical connections to conductive thin film
 [NASA-CASE-GSC-12404-1] c33 N79-17135
 A coupling device for moving vehicles
 [NASA-CASE-GSC-12429-1] c37 N79-19364
 Solar cell module assembly jig
 [NASA-CASE-IGS-00829-1] c44 N79-19447
 Apparatus for supplying conditioned air at a substantially constant temperature and humidity
 [NASA-CASE-GSC-12191-1] c54 N79-19688
 System for synchronizing synthesizers of communication systems
 [NASA-CASE-GSC-12148-1] c32 N79-20296
 Rotary electric device
 [NASA-CASE-GSC-12138-1] c33 N79-20314
 Low intensity X-ray and gamma-ray imaging device
 [NASA-CASE-GSC-12263-1] c74 N79-20457
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
LYNDON B. JOHNSON SPACE CENTER, HOUSTON, TEX.
 Coupling device
 [NASA-CASE-XMS-07846-1] c09 N69-21927
 Flow test device
 [NASA-CASE-XMS-04917] c14 N69-24257
 Visual target for retrofire attitude control
 [NASA-CASE-XMS-12158-1] c31 N69-27499
 System for monitoring signal amplitude ranges
 [NASA-CASE-XMS-04061-1] c09 N69-39885
 Amplifier drift tester
 [NASA-CASE-XMS-05562-1] c09 N69-39986
 System for improving signal-to-noise ratio of a communication signal Patent Application
 [NASA-CASE-HSC-12259-1] c07 N70-12616
 Two-step rocket engine bipropellant valve Patent
 [NASA-CASE-XMS-04890-1] c15 N70-22192
 Heat shield Patent
 [NASA-CASE-XMS-00486] c33 N70-33344
 Life raft Patent
 [NASA-CASE-XMS-00863] c05 N70-34857
 Shock absorbing support and restraint means Patent
 [NASA-CASE-XMS-01240] c05 N70-35152
 Energy absorbing structure Patent Application
 [NASA-CASE-HSC-12279-1] c15 N70-35679
 Bonded solid lubricant coating Patent
 [NASA-CASE-XMS-00259] c18 N70-36400
 Life preserver Patent
 [NASA-CASE-XMS-00864] c05 N70-36493
 Resuscitation apparatus Patent
 [NASA-CASE-XMS-01115] c05 N70-39922
 Inflatable radar reflector unit Patent
 [NASA-CASE-XMS-00893] c07 N70-40063
 Measuring device Patent
 [NASA-CASE-XMS-01546] c14 N70-40233
 Liquid-gas separator for zero gravity environment Patent
 [NASA-CASE-XMS-01492] c05 N70-41297
 Instrument for use in performing a controlled Valsalva maneuver Patent
 [NASA-CASE-XMS-01615] c05 N70-41329
 Radial module space station Patent
 [NASA-CASE-XMS-01906] c31 N70-41373
 Hypersonic reentry vehicle Patent
 [NASA-CASE-XMS-04142] c31 N70-41631
 Angular accelerometer Patent
 [NASA-CASE-XMS-05936] c14 N70-41682
 Indexed keyed connection Patent
 [NASA-CASE-XMS-02532] c15 N70-41808
 Discrote local altitude sensing device Patent
 [NASA-CASE-XMS-03792] c14 N70-41812
 Cryogenic storage system Patent
 [NASA-CASE-XMS-04390] c31 N70-41871
 Mass measuring system Patent
 [NASA-CASE-XMS-03371] c05 N70-42000
 Line cutter Patent
 [NASA-CASE-XMS-04072] c15 N70-42017
 Transpirationally cooled heat ablation system Patent
 [NASA-CASE-XMS-02677] c31 N70-42075
 Voltage-current characteristic simulator Patent
 [NASA-CASE-XMS-01554] c10 N71-10578
 Training vehicle for controlling attitude Patent
 [NASA-CASE-XMS-02977] c11 N71-10746
 Gravity stabilized flying vehicle Patent
 [NASA-CASE-HSC-12111-1] c02 N71-11039
 Helmet assembly and latch means therefor Patent
 [NASA-CASE-XMS-04935] c05 N71-11190
 Pressure suit tie-down mechanism Patent
 [NASA-CASE-XMS-00784] c05 N71-12335
 Hand-held self-manuevering unit Patent
 [NASA-CASE-XMS-05304] c05 N71-12336
 Pressure garment joint Patent
 [NASA-CASE-XMS-09636] c05 N71-12344
 Emergency escape system Patent
 [NASA-CASE-HSC-12086-1] c05 N71-12345
 Dynamic Doppler simulator Patent
 [NASA-CASE-XMS-05454-1] c07 N71-12391
 Electrical load protection device Patent
 [NASA-CASE-HSC-12135-1] c09 N71-12526
 High voltage pulse generator Patent
 [NASA-CASE-HSC-12178-1] c09 N71-13518
 Process for conditioning tanned sharkskin and articles made therefrom Patent
 [NASA-CASE-XMS-09691-1] c18 N71-15545
 Ablation structures Patent
 [NASA-CASE-XMS-01816] c33 N71-15623
 Fluid power transmission Patent
 [NASA-CASE-XMS-01445] c12 N71-16031
 Spacecraft radiator cover Patent
 [NASA-CASE-HSC-12049] c31 N71-16080
 Method of improving heat transfer characteristics in a nucleate boiling process Patent
 [NASA-CASE-XMS-04268] c33 N71-16277
 Heated element fluid flow sensor Patent
 [NASA-CASE-HSC-12084-1] c12 N71-17569
 Biological isolation garment Patent
 [NASA-CASE-HSC-12206-1] c05 N71-17599
 Metal valve pintle with encapsulated elastomeric body Patent
 [NASA-CASE-HSC-12116-1] c15 N71-17648
 Method for forming plastic materials Patent
 [NASA-CASE-XMS-05516] c15 N71-17803
 Flexible blade antenna Patent
 [NASA-CASE-HSC-12101] c09 N71-18720
 Space suit heat exchanger Patent
 [NASA-CASE-XMS-09571] c05 N71-19439
 Light intensity modulator controller Patent
 [NASA-CASE-XMS-04300] c09 N71-19479
 Solar optical telescope dome control system Patent
 [NASA-CASE-HSC-10966] c14 N71-19568
 High temperature compositions Patent
 [NASA-CASE-XMS-00370] c17 N71-20941
 Radiation detector readout system Patent
 [NASA-CASE-XMS-03478] c14 N71-21040
 Subgravity simulator Patent
 [NASA-CASE-XMS-04798] c11 N71-21474
 Shock absorber Patent
 [NASA-CASE-XMS-03722] c15 N71-21530
 Apparatus for machining geometric cones Patent
 [NASA-CASE-XMS-04292] c15 N71-22722

Rescue litter flotation assembly Patent [NASA-CASE-XMS-04170]	c05 N71-22748	A method of delivering a vehicle to earth orbit and returning the reusable portion thereof to earth [NASA-CASE-MSC-12391]	c30 N73-12884
Aligning and positioning device Patent [NASA-CASE-XMS-04178]	c15 N71-22798	Multispectral imaging system [NASA-CASE-MSC-12404-1]	c23 N73-13661
Tension measurement device Patent [NASA-CASE-XMS-04545]	c15 N71-22878	Foldable construction block [NASA-CASE-MSC-12233-2]	c32 N73-13921
Amplitude modulated laser transmitter Patent [NASA-CASE-XMS-04269]	c16 N71-22895	Space shuttle vehicle and system [NASA-CASE-MSC-12433]	c31 N73-14854
Digital cardiometer system Patent [NASA-CASE-XMS-02399]	c05 N71-22896	Apparatus for statistical time-series analysis of electrical signals [NASA-CASE-MSC-12428-1]	c10 N73-25240
Phonocardiograph transducer Patent [NASA-CASE-XMS-05365]	c14 N71-22993	Life raft stabilizer [NASA-CASE-MSC-12393-1]	c02 N73-26006
Multiple environment materials test chamber having a multiple port X-ray tube for irradiating a plurality of samples Patent [NASA-CASE-XMS-02930]	c11 N71-23042	On-film optical recording of camera lens settings [NASA-CASE-MSC-12363-1]	c14 N73-26431
Soft frame adjustable eyeglasses Patent [NASA-CASE-XMS-06064]	c05 N71-23096	Powerplexer [NASA-CASE-MSC-12390]	c03 N73-31988
Blood pressure measuring system for separating and separately recording dc signal and an ac signal Patent [NASA-CASE-XMS-06061]	c05 N71-23317	Foot pedal operated fluid type exercising device [NASA-CASE-MSC-11561-1]	c05 N73-32014
Signal ratio system utilizing voltage controlled oscillators Patent [NASA-CASE-XMF-04367]	c09 N71-23545	Digital to analog conversion apparatus [NASA-CASE-MSC-12458-1]	c08 N73-32081
Winch having cable position and load indicators Patent [NASA-CASE-MSC-12052-1]	c15 N71-24599	Solid state controller three axes controller [NASA-CASE-MSC-12394-1]	c08 N74-10942
Radar antenna system for acquisition and tracking Patent [NASA-CASE-XMS-09610]	c07 N71-24625	Method for obtaining oxygen from lunar or similar soil [NASA-CASE-MSC-12408-1]	c46 N74-13011
Extravehicular tunnel suit system Patent [NASA-CASE-MSC-12243-1]	c05 N71-24728	Adaptive voting computer system [NASA-CASE-MSC-13932-1]	c62 N74-14920
Broadband modified turnstile antenna Patent [NASA-CASE-MSC-12209]	c09 N71-24842	Phase protection system for ac power lines [NASA-CASE-MSC-17832-1]	c33 N74-14956
Quick release book tape Patent [NASA-CASE-XMS-10660-1]	c15 N71-25975	Optical instruments [NASA-CASE-MSC-14096-1]	c74 N74-15095
Plated electrodes Patent [NASA-CASE-XMS-04213-1]	c09 N71-26002	Multifunction audio digitizer [NASA-CASE-MSC-13855-1]	c35 N74-17885
Audio signal processor Patent [NASA-CASE-MSC-12223-1]	c07 N71-26181	Method and apparatus for stable silicon dioxide layers on silicon grown in silicon nitride ambient [NASA-CASE-ERC-10073-1]	c24 N74-19769
Fabric for micrometeoroid protection garment Patent [NASA-CASE-MSC-12109]	c18 N71-26285	Pulse code modulated signal synchronizer [NASA-CASE-MSC-12462-1]	c32 N74-20809
Antenna array phase quadrature tracking system Patent [NASA-CASE-MSC-12205-1]	c07 N71-27056	Pulse code modulated signal synchronizer [NASA-CASE-MSC-12494-1]	c32 N74-20810
Radiometric temperature reference Patent [NASA-CASE-MSC-13276-1]	c14 N71-27058	Apparatus and method for processing Korotkov sounds [NASA-CASE-MSC-13999-1]	c52 N74-26626
Pneumatic amplifier Patent [NASA-CASE-MSC-12121-1]	c15 N71-27147	Differential phase shift keyed communication system [NASA-CASE-MSC-14065-1]	c32 N74-26654
Orbital escape device Patent [NASA-CASE-XMS-06162]	c31 N71-28851	Technique for recovery of voice data from heat damaged magnetic tape [NASA-CASE-MSC-14219-1]	c32 N74-27612
Inflatable tether Patent [NASA-CASE-XMS-10993]	c15 N71-28936	Differential phase shift keyed signal resolver [NASA-CASE-MSC-14066-1]	c33 N74-27705
Ion-exchange membrane with platinum electrode assembly Patent [NASA-CASE-XMS-02063]	c03 N71-29044	Specific wavelength colorimeter [NASA-CASE-MSC-14081-1]	c35 N74-27860
Color television system [NASA-CASE-MSC-12146-1]	c07 N72-17109	Latch mechanism [NASA-CASE-MSC-12549-1]	c37 N74-27903
Current dependent filter inductance [NASA-CASE-ERC-10139]	c09 N72-17154	Digital communication system [NASA-CASE-MSC-13912-1]	c32 N74-30524
Low onset rate energy absorber [NASA-CASE-MSC-12279]	c15 N72-17450	Flexible joint for pressurizable garment [NASA-CASE-MSC-11072]	c54 N74-32546
Stand-off type ablative heat shield [NASA-CASE-MSC-12143-1]	c33 N72-17947	Method and apparatus for decoding compatible convolutional codes [NASA-CASE-MSC-14070-1]	c32 N74-32598
Photographic film restoration system [NASA-CASE-MSC-12448-1]	c14 N72-20394	Pulse stretcher for narrow pulses [NASA-CASE-MSC-14130-1]	c33 N74-32711
Optical range finder having nonoverlapping complete images [NASA-CASE-MSC-12105-1]	c14 N72-21409	Method and device for detection of surface discontinuities or defects [NASA-CASE-MSC-14187-1]	c35 N74-32879
Open type urine receptacle [NASA-CASE-MSC-12324-1]	c05 N72-22093	Anti-fog composition [NASA-CASE-MSC-13530-2]	c23 N75-14834
Family of frequency to amplitude converters [NASA-CASE-MSC-12395]	c09 N72-25257	Four phase logic systems [NASA-CASE-MSC-14240-1]	c33 N75-14957
Foldable construction block [NASA-CASE-MSC-12233-1]	c15 N72-25454	Peak holding circuit for extremely narrow pulses [NASA-CASE-MSC-14129-1]	c33 N75-18479
Method and apparatus for detecting surface ions on silicon diodes and transistors [NASA-CASE-ERC-10325]	c15 N72-25457	Random pulse generator [NASA-CASE-MSC-14131-1]	c33 N75-19515
Scientific experiment flexible mount [NASA-CASE-MSC-12372-1]	c31 N72-25842	Grain refinement control in TIG arc welding [NASA-CASE-MSC-19095-1]	c37 N75-19683
Burn rate testing apparatus [NASA-CASE-XMS-09690]	c33 N72-25913	Condensate removal device for heat exchanger [NASA-CASE-MSC-14143-1]	c77 N75-20139
System for improving signal-to-noise ratio of a communication signal [NASA-CASE-MSC-12259-2]	c07 N72-33146	Television noise reduction device [NASA-CASE-MSC-12607-1]	c32 N75-21485
Altitude measuring system [NASA-CASE-ERC-10412-1]	c09 N73-12211	Digital transmitter for data bus communications system [NASA-CASE-MSC-14558-1]	c32 N75-21486

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Thermal insulation attaching means
[NASA-CASE-MSC-12619-1] c39 N75-21671

Insulated electrocardiographic electrodes
[NASA-CASE-MSC-14339-1] c05 N75-24716

Variable ratio mixed-mode bilateral master-slave control system for shuttle remote manipulator system
[NASA-CASE-MSC-14245-1] c18 N75-27041

Multiple circuit protector device
[NASA-CASE-MSC-02744] c33 N75-27249

Apparatus for welding sheet material
[NASA-CASE-MSC-01330] c37 N75-27376

Multiparameter vision testing apparatus
[NASA-CASE-MSC-13601-2] c54 N75-27759

Thrust measurement
[NASA-CASE-MSC-05731] c35 N75-29382

Fault tolerant clock apparatus utilizing a controlled minority of clock elements
[NASA-CASE-MSC-12531-1] c35 N75-30504

Filter regeneration systems
[NASA-CASE-MSC-14273-1] c34 N75-33342

Spacecraft docking and alignment system
[NASA-CASE-MSC-12559-1] c18 N76-14186

Reconstituted asbestos matrix
[NASA-CASE-MSC-12568-1] c24 N76-14204

Strain arrestor plate for fused silica tile
[NASA-CASE-MSC-14182-1] c27 N76-14264

Medical subject monitoring systems
[NASA-CASE-MSC-14180-1] c52 N76-14757

Automatic blowaste sampling
[NASA-CASE-MSC-14640-1] c54 N76-14804

Method for manufacturing mirrors in zero gravity environment
[NASA-CASE-MSC-12611-1] c12 N76-15189

Ceramic fiber insulating material and methods of producing same
[NASA-CASE-MSC-14795-1] c27 N76-15314

Cosmic dust analyzer
[NASA-CASE-MSC-13802-2] c35 N76-15431

High visibility air sea rescue panel
[NASA-CASE-MSC-12564-1] c54 N76-15792

Insulation for piping
[NASA-CASE-MSC-19523-1] c31 N76-16245

Low distortion receiver for bi-level baseband PCM waveforms
[NASA-CASE-MSC-14557-1] c32 N76-16249

Frequency measurement by coincidence detection with standard frequency
[NASA-CASE-MSC-14649-1] c33 N76-16331

Pyrolysis system and process
[NASA-CASE-MSC-12669-1] c44 N76-16621

Space vehicle system
[NASA-CASE-MSC-12561-1] c18 N76-17185

Method of fluxless brazing and diffusion bonding of aluminum containing components
[NASA-CASE-MSC-14435-1] c37 N76-18455

Auger attachment method for insulation
[NASA-CASE-MSC-12615-1] c37 N76-19437

Position determination systems
[NASA-CASE-MSC-12593-1] c17 N76-21250

Two-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-1] c27 N76-22377

Three-component ceramic coating for silica insulation
[NASA-CASE-MSC-14270-2] c27 N76-23426

Binary concatenated coding system
[NASA-CASE-MSC-14082-1] c60 N76-23850

Non-flammable elastomeric fiber from a fluorinated elastomer and containing an halogenated flame retardant
[NASA-CASE-MSC-14331-1] c27 N76-24405

Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900

A logic-controlled occlusive cuff system
[NASA-CASE-MSC-14836-1] c52 N76-27839

Sun angle calculator
[NASA-CASE-MSC-12617-1] c35 N76-29552

Meteoroid capture cell construction
[NASA-CASE-MSC-12423-1] c91 N76-30131

Planned major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562

Optical noise suppression device and method
[NASA-CASE-MSC-12640-1] c74 N76-31998

Optical process for producing classification maps from multispectral data
[NASA-CASE-MSC-14472-1] c43 N77-10584

Window defect planar mapping technique
[NASA-CASE-MSC-19442-1] c74 N77-10899

Differential pulse code modulation
[NASA-CASE-MSC-12506-1] c32 N77-12239

Receiving and tracking phase modulated signals
[NASA-CASE-MSC-16170-1] c32 N77-12248

Shielded conductor cable system
[NASA-CASE-MSC-12745-1] c33 N77-13338

Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-MSC-16074-1] c27 N77-14262

Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-MSC-14276-1] c52 N77-14737

Dual frequency circularly polarized microwave integrated antenna
[NASA-CASE-MSC-16100-1] c32 N77-15233

Analysis of volatile organic compounds
[NASA-CASE-MSC-14428-1] c23 N77-17161

System for producing chroma signals
[NASA-CASE-MSC-14683-1] c74 N77-18893

Fluid mass sensor for a zero gravity environment
[NASA-CASE-MSC-14653-1] c35 N77-19385

Portable breathing system
[NASA-CASE-MSC-16182-1] c54 N77-21847

Thermal insulation protection means
[NASA-CASE-MSC-12737-1] c34 N77-22423

Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482

Unbalanced quadriphase demodulator
[NASA-CASE-MSC-14840-1] c32 N77-24331

Open loop digital frequency multiplier
[NASA-CASE-MSC-12709-1] c33 N77-24375

Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536

Platinum resistance thermometer circuit
[NASA-CASE-MSC-12327-1] c35 N77-27368

Surface finishing
[NASA-CASE-MSC-12631-1] c24 N77-28225

Pressure modulating valve
[NASA-CASE-MSC-14905-1] c37 N77-28487

Snap-in compressible biomedical electrode
[NASA-CASE-MSC-14623-1] c52 N77-28717

Process for removing sulfur dioxide from gas streams
[NASA-CASE-MSC-16299-1] c45 N77-31668

Load regulating latch
[NASA-CASE-MSC-19535-1] c37 N77-32499

Regenerable device for scrubbing breathable air of CO2 and moisture without special heat exchanger equipment
[NASA-CASE-MSC-14771-1] c54 N77-32722

Process of forming catalytic surfaces for wet oxidation reactions
[NASA-CASE-MSC-14831-1] c25 N78-10225

Hearing aid malfunction detection system
[NASA-CASE-MSC-14916-1] c33 N78-10375

Gas compression apparatus
[NASA-CASE-MSC-14757-1] c35 N78-10428

Reciprocating engines
[NASA-CASE-MSC-16239-1] c37 N78-11399

Low gravity phase separator
[NASA-CASE-MSC-14773-1] c35 N78-12390

Iodine generator for reclaimed water purification
[NASA-CASE-MSC-14632-1] c54 N78-14784

Flame retardant spandex type polyurethanes
[NASA-CASE-MSC-14331-2] c27 N78-17213

Temperature compensated current source
[NASA-CASE-MSC-11235] c33 N78-17294

Microbalance
[NASA-CASE-MSC-11242] c35 N78-17358

Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383

Restraining mechanism
[NASA-CASE-MSC-13054] c54 N78-17677

Helmet latching and attaching ring
[NASA-CASE-MSC-04670] c54 N78-17678

Protective garment ventilation system
[NASA-CASE-MSC-04928] c54 N78-17679

Helmet feedport
[NASA-CASE-MSC-09653] c54 N78-17680

Optical conversion method
[NASA-CASE-MSC-12618-1] c74 N78-17865

Method and apparatus for eliminating luminol interference material
[NASA-CASE-MSC-16260-1] c51 N78-18674

Emergency space-suit helmet
[NASA-CASE-MSC-10954-1] c54 N78-18761

Structural members, method and apparatus
[NASA-CASE-MSC-16217-1] c18 N78-22146

System for automatically switching transformer coupled lines
[NASA-CASE-MSC-16697-1] c33 N78-22298

Method and apparatus for continuous measurement of bacterial content of aqueous samples
[NASA-CASE-MSC-16779-1] c51 N78-22586

Method and automated apparatus for detecting coliform organisms
[NASA-CASE-MSC-16777-1] c51 N78-22588

Water quality monitoring system
[NASA-CASE-MSC-16778-1] c51 N78-22589

Fluid sample collection and distribution system
[NASA-CASE-MSC-16841-1] c51 N78-22590

Method of producing complex aluminum alloy parts of high temper, and products thereof
[NASA-CASE-MSC-19693-1] c26 N78-24333

Stator rotor tools
[NASA-CASE-MSC-16000-1] c37 N78-24544

High visibility air sea rescue panel
[NASA-CASE-MSC-12564-2] c03 N78-25070

Ceramic filter insulating material and method of producing same
[NASA-CASE-MSC-14795-2] c24 N78-25138

Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-2] c27 N78-25216

Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-3] c27 N78-25217

Flexible pile thermal barrier insulator
[NASA-CASE-MSC-19568-1] c34 N78-25350

Fluid valve assembly
[NASA-CASE-MSC-12731-1] c37 N78-25426

Flame retardant formulations and products produced therefrom
[NASA-CASE-MSC-16307-1] c25 N78-27232

Variable contour securing system
[NASA-CASE-MSC-16270-1] c37 N78-27423

Urine collection device
[NASA-CASE-MSC-16433-1] c52 N78-27750

Multi-purpose wind tunnel reaction control model block
[NASA-CASE-MSC-19706-1] c09 N78-31129

A pressure limiting propellant actuating system
[NASA-CASE-MSC-18179-1] c20 N78-31162

Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N78-32256

A floating nut retention system
[NASA-CASE-MSC-16938-1] c37 N78-32431

Condition sensor system and method
[NASA-CASE-MSC-14805-1] c54 N78-32720

Bit error rate measurement above and below bit rate tracking threshold
[NASA-CASE-MSC-12743-1] c32 N79-10263

Phased array antenna control
[NASA-CASE-MSC-14939-1] c32 N79-11264

Apparatus and method for stabilized phase detection for binary signal tracking loops
[NASA-CASE-MSC-16461-1] c33 N79-11313

Positive isolation disconnect
[NASA-CASE-MSC-16043-1] c37 N79-11402

Thermal insulation attaching means
[NASA-CASE-MSC-12619-2] c27 N79-12221

Lightweight electrically-powered flexible thermal laminate
[NASA-CASE-MSC-12662-1] c33 N79-12331

Simultaneous treatment of SO2 containing stack gases and waste water
[NASA-CASE-MSC-16258-1] c45 N79-12584

Length mode piezoelectric ultrasonic transducer for inspection of solid objects
[NASA-CASE-MSC-19672-1] c38 N79-14398

A method and technique for installing light-weight fragile, high-temperature fiber insulation
[NASA-CASE-MSC-16934-1] c24 N79-16923

Digital numerically controlled oscillator
[NASA-CASE-MSC-16747-1] c33 N79-17138

A method of making high temperature seals
[NASA-CASE-MSC-16973-1] c37 N79-17224

Thermal barrier pressure seal
[NASA-CASE-MSC-18134-1] c37 N79-17225

Coaxial phased array antenna
[NASA-CASE-MSC-16800-1] c32 N79-19194

Method for applying photographic resists to otherwise incompatible substrates
[NASA-CASE-MSC-18107-1] c35 N79-19319

Interactive color display for multispectral imagery using correlation clustering
[NASA-CASE-MSC-16253-1] c32 N79-20297

Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377

Surface finishing
[NASA-CASE-MSC-12631-3] c26 N79-21183

Water separator
[NASA-CASE-XMS-01295-1] c37 N79-21345

Metabolic rate meter and method
[NASA-CASE-MSC-12239-1] c52 N79-21750

Protective garment ventilation system
[NASA-CASE-XMS-04928-1] c54 N79-21765

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. JOHN P. KENNEDY SPACE CENTER, COCOA BEACH, FLA.

Device for determining the accuracy of the flare on a flared tube
[NASA-CASE-XKS-03495] c14 N69-39785

Quick attach and release fluid coupling assembly Patent
[NASA-CASE-XKS-01985] c15 N71-10782

Parasitic probe antenna Patent
[NASA-CASE-XKS-09348] c09 N71-13521

Electronic checkout system for space vehicles Patent
[NASA-CASE-XKS-08012-2] c31 N71-15566

Apparatus for tensile testing Patent
[NASA-CASE-XKS-06250] c14 N71-15600

Weatherproof helix antenna Patent
[NASA-CASE-XKS-08485] c07 N71-19493

Valve seat with resilient support member Patent
[NASA-CASE-XKS-02582] c15 N71-21234

Diode and protection fuse unit Patent
[NASA-CASE-XKS-03381] c09 N71-22796

Optical monitor panel Patent
[NASA-CASE-XKS-03509] c14 N71-23175

Separation simulator Patent
[NASA-CASE-XKS-04631] c10 N71-23663

Controlled release device Patent
[NASA-CASE-XKS-03338] c15 N71-24043

Phonocardiogram simulator Patent
[NASA-CASE-XKS-10804] c05 N71-24606

VHF/UHF parasitic probe antenna Patent
[NASA-CASE-XKS-09340] c07 N71-24614

BCD to decimal decoder Patent
[NASA-CASE-XKS-06167] c08 N71-24890

Flammability test chamber Patent
[NASA-CASE-KSC-10126] c11 N71-24985

Video sync processor Patent
[NASA-CASE-KSC-10002] c10 N71-25865

Weld preparation machine Patent
[NASA-CASE-XKS-07953] c15 N71-26134

Validation device for spacecraft checkout equipment Patent
[NASA-CASE-XKS-10543] c07 N71-26292

Internal work light Patent
[NASA-CASE-XKS-05932] c09 N71-26787

Emergency escape system Patent
[NASA-CASE-XKS-07814] c15 N71-27067

Voltage dropout sensor Patent
[NASA-CASE-KSC-10020] c10 N71-27338

Autoignition test cell Patent
[NASA-CASE-KSC-10198] c11 N71-28629

Protective suit having an audio transceiver Patent
[NASA-CASE-KSC-10164] c07 N71-33108

Ripple indicator
[NASA-CASE-KSC-10162] c09 N72-11225

High speed photo-optical time recording
[NASA-CASE-KSC-10294] c14 N72-18411

High speed direct binary-to-binary coded decimal converter
[NASA-CASE-KSC-10326] c08 N72-21197

Automatic frequency control loop including synchronous switching circuits
[NASA-CASE-KSC-10393] c09 N72-21247

Zero gravity shadow shield aligner
[NASA-CASE-KSC-10622-1] c31 N72-21893

Universal environment package with sectional component housing
[NASA-CASE-KSC-10031] c15 N72-22486

Buffered analog converter
[NASA-CASE-KSC-10397] c08 N72-25206

Lamp modulator
[NASA-CASE-KSC-10565] c09 N72-25250

Cable stabilizer for open shaft cable operated elevators
[NASA-CASE-KSC-10513] c15 N72-25453

Pressurized lighting system
[NASA-CASE-KSC-10644] c09 N72-27227

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

High speed direct binary to binary coded decimal converter and scaler [NASA-CASE-KSC-10595]	c08 N73-12176	Electromagnetic mirror drive system [NASA-CASE-XLA-03724]	c14 N69-27461
Geysering inhibitor for vertical cryogenic transfer pipe [NASA-CASE-KSC-10615]	c15 N73-12486	Evaporant holder [NASA-CASE-XLA-03105]	c15 N69-27483
Electronic video editor [NASA-CASE-KSC-10003]	c10 N73-13235	Compensating radionometer [NASA-CASE-XLA-04556]	c14 N69-27484
Character indicating display device [NASA-CASE-KSC-00348]	c09 N73-14215	Tabular coupling having frangible connecting means [NASA-CASE-XLA-02854]	c15 N69-27490
Collapsible high gain antenna [NASA-CASE-KSC-10392]	c07 N73-26117	Fatigue-resistant shear pin [NASA-CASE-XLA-09122]	c15 N69-27505
Floating baffle to improve efficiency of liquid transfer from tanks [NASA-CASE-KSC-10639]	c15 N73-26472	Ablation sensor [NASA-CASE-XLA-01781]	c14 N69-39975
Zero gravity liquid transfer screen [NASA-CASE-KSC-10626]	c14 N73-27378	Aeroflexible structures [NASA-CASE-XLA-06095]	c01 N69-39981
Optical rotational sensor [NASA-CASE-KSC-10752-1]	c15 N73-27407	Transient-compensated SCR inverter [NASA-CASE-XLA-08507]	c09 N69-39984
Television multiplexing system [NASA-CASE-KSC-10654-1]	c07 N73-30115	Capacitor power pak Patent Application [NASA-CASE-XLA-10367-1]	c03 N70-26817
Lightning tracking system [NASA-CASE-KSC-10729-1]	c09 N73-32110	Disk pack cleaning table Patent Application [NASA-CASE-XLA-10590-1]	c15 N70-26819
Rocket borne instrument to measure electric fields inside electrified clouds [NASA-CASE-KSC-10730-1]	c14 N73-32318	Folding apparatus Patent [NASA-CASE-XLA-00137]	c15 N70-33180
Electric field measuring and display system [NASA-CASE-KSC-10731-1]	c33 N74-27862	Infrared scanner Patent [NASA-CASE-XLA-00120]	c21 N70-33181
Digital servo controller [NASA-CASE-KSC-10769-1]	c33 N74-29556	Reentry vehicle leading edge Patent [NASA-CASE-XLA-00165]	c31 N70-33242
Signal conditioner test set [NASA-CASE-KSC-10750-1]	c35 N75-12270	Motion picture camera for optical pyrometry Patent [NASA-CASE-XLA-00062]	c14 N70-33254
Variable resistance constant tension and lubrication device [NASA-CASE-KSC-10723-1]	c37 N75-13265	Variable sweep wing configuration Patent [NASA-CASE-XLA-00230]	c02 N70-33255
Voltage monitoring system [NASA-CASE-KSC-10736-1]	c33 N75-19521	Variable sweep wing aircraft Patent [NASA-CASE-XLA-00221]	c02 N70-33266
Lightning current measuring systems [NASA-CASE-KSC-10807-1]	c33 N75-26246	Plasma accelerator Patent [NASA-CASE-XLA-00675]	c25 N70-33267
Dual digital video switcher [NASA-CASE-KSC-10782-1]	c33 N75-30431	Survival couch Patent [NASA-CASE-XLA-00118]	c05 N70-33285
Compact hi-phase pulse coded modulation decoder [NASA-CASE-KSC-10834-1]	c33 N76-14371	Landing arrangement for aerial vehicles Patent [NASA-CASE-XLA-00142]	c02 N70-33286
Percutaneous connector device [NASA-CASE-KSC-10849-1]	c52 N77-14738	Wind tunnel airstream oscillating apparatus Patent [NASA-CASE-XLA-00112]	c11 N70-33287
Magnetic electrical connectors for biomedical percutaneous implants [NASA-CASE-KSC-11030-1]	c52 N77-25772	Hydrofoil Patent [NASA-CASE-XLA-00229]	c12 N70-33305
Rotational joint assembly for the prosthetic leg [NASA-CASE-KSC-11004-1]	c54 N77-30749	High intensity heat and light unit Patent [NASA-CASE-XLA-00141]	c09 N70-33312
Fiber optic multiplex optical transmission system [NASA-CASE-KSC-11047-1]	c74 N78-14889	Particle detection apparatus Patent [NASA-CASE-XLA-00135]	c14 N70-33322
System and method for refurbishing and processing parachutes [NASA-CASE-KSC-11042-1]	c02 N78-22026	Runway light Patent [NASA-CASE-XLA-00119]	c11 N70-33329
Penetrator nozzle [NASA-CASE-KSC-11064-1]	c34 N78-22328	Spherical solid-propellant rocket motor Patent [NASA-CASE-XLA-00105]	c28 N70-33331
A prosthesis coupling [NASA-CASE-KSC-11069-1]	c54 N78-22721	Jet aircraft configuration Patent [NASA-CASE-XLA-00087]	c02 N70-33332
Microcomputerized electric field meter diagnostic and calibration system [NASA-CASE-KSC-11035-1]	c35 N78-28411	Aerial capsule emergency separation device Patent [NASA-CASE-XLA-00115]	c03 N70-33343
Ocean thermal plant [NASA-CASE-KSC-11034-1]	c44 N78-32542	Nozzle Patent [NASA-CASE-XLA-00154]	c28 N70-33374
Lightning current waveform measuring system [NASA-CASE-KSC-11018-1]	c33 N79-10337	Air frame drag balance Patent [NASA-CASE-XLA-00113]	c14 N70-33386
Remote lightning monitor system [NASA-CASE-KSC-11031-1]	c33 N79-11315	Flexible foam erectable space structures Patent [NASA-CASE-XLA-00686]	c31 N70-34135
Illumination control apparatus for compensating solar light [NASA-CASE-KSC-11010-1]	c74 N79-12890	Nose gear steering system for vehicle with main skids Patent [NASA-CASE-XLA-01804]	c02 N70-34160
Lightning current detector [NASA-CASE-KSC-11057-1]	c33 N79-14305	Surface roughness detector Patent [NASA-CASE-XLA-00203]	c14 N70-34161
Apparatus including a plurality of spaced transformers for locating short circuits in cables [NASA-CASE-KSC-10899-1]	c33 N79-18193	Variable-span aircraft Patent [NASA-CASE-XLA-00166]	c02 N70-34178
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. LANGLEY RESEARCH CENTER, HAMPTON, VA.		Dynamic precession damper for spin stabilized vehicles Patent [NASA-CASE-XLA-01989]	c21 N70-34295
Jet shoes [NASA-CASE-XLA-08491]	c05 N69-21380	Erectable modular space station Patent [NASA-CASE-XLA-00678]	c31 N70-34296
Condenser - Separator [NASA-CASE-XLA-08645]	c15 N69-21465	Electric-arc heater Patent [NASA-CASE-XLA-00330]	c33 N70-34540
Connector - Electrical [NASA-CASE-XLA-01288]	c09 N69-21470	Ac power amplifier Patent Application [NASA-CASE-XLA-10218-1]	c09 N70-34559
A support technique for vertically oriented launch vehicles [NASA-CASE-XLA-02704]	c11 N69-21540	Method and apparatus for producing a plasma Patent [NASA-CASE-XLA-00147]	c25 N70-34661
		Gas actuated bolt disconnect Patent [NASA-CASE-XLA-00326]	c03 N70-34667
		Logarithmic converter Patent [NASA-CASE-XLA-00471]	c08 N70-34778
		Mandrel for shaping solid propellant rocket fuel into a motor casing Patent [NASA-CASE-XLA-00304]	c27 N70-34783
		Impact simulator Patent [NASA-CASE-XLA-00493]	c11 N70-34786
		Accelerometer with FM output Patent [NASA-CASE-XLA-00492]	c14 N70-34799

Frangible tube energy dissipation Patent		Double hinged flap Patent	
[NASA-CASE-XLA-00754]	c15 N70-34850	[NASA-CASE-XLA-01290]	c02 N70-42016
Landing arrangement for aerial vehicle Patent		Spacecraft separation system for spinning vehicles and/or payloads Patent	
[NASA-CASE-XLA-00806]	c02 N70-34858	[NASA-CASE-XLA-02132]	c31 N71-10582
Method and apparatus for shock protection Patent		Method for molding compounds Patent	
[NASA-CASE-XLA-00482]	c15 N70-36409	[NASA-CASE-XLA-01091]	c15 N71-10672
Inflatable honeycomb Patent		Automatic force measuring system Patent	
[NASA-CASE-XLA-00204]	c32 N70-36536	[NASA-CASE-XLA-02605]	c14 N71-10773
Thermal control of space vehicles Patent		Gas analyzer for bi-gaseous mixtures Patent	
[NASA-CASE-XLA-01291]	c33 N70-36617	[NASA-CASE-XLA-01131]	c14 N71-10774
Foam generator Patent		Multiple input radio receiver Patent	
[NASA-CASE-XLA-00838]	c03 N70-36778	[NASA-CASE-XLA-00901]	c07 N71-10775
Parachute glider Patent		Rotating space station simulator Patent	
[NASA-CASE-XLA-00898]	c02 N70-36804	[NASA-CASE-XLA-03127]	c11 N71-10776
Production of high purity silicon carbide Patent		Composite powerplant and shroud therefor Patent	
[NASA-CASE-XLA-00158]	c26 N70-36805	[NASA-CASE-XLA-01043]	c28 N71-10780
Airplane take-off performance indicator Patent		All-directional fastener Patent	
[NASA-CASE-XLA-00100]	c14 N70-36807	[NASA-CASE-XLA-01807]	c15 N71-10799
Aerodynamic measuring device Patent		Hot air balloon deceleration and recovery system Patent	
[NASA-CASE-XLA-00481]	c14 N70-36824	[NASA-CASE-XLA-06824-2]	c02 N71-11037
Aircraft wheel spray drag alleviator Patent		Control for flexible parawing Patent	
[NASA-CASE-XLA-01583]	c02 N70-36825	[NASA-CASE-XLA-06958]	c02 N71-11038
Attitude orientation of spin-stabilized space vehicles Patent		Variable sweep aircraft Patent	
[NASA-CASE-XLA-00281]	c21 N70-36943	[NASA-CASE-XLA-03659]	c02 N71-11041
Continuously operating induction plasma accelerator Patent		Translating horizontal tail Patent	
[NASA-CASE-XLA-01354]	c25 N70-36946	[NASA-CASE-XLA-08801-1]	c02 N71-11043
Check valve assembly for a probe Patent		Space suit pressure stabilizer Patent	
[NASA-CASE-XLA-00128]	c15 N70-37925	[NASA-CASE-XLA-05332]	c05 N71-11194
Space capsule Patent		Equipotential space suit Patent	
[NASA-CASE-XLA-00149]	c31 N70-37938	[NASA-CASE-XLA-10007-1]	c05 N71-11195
Sandwich panel construction Patent		Recovery of potable water from human wastes in below-G conditions Patent	
[NASA-CASE-XLA-00349]	c33 N70-37979	[NASA-CASE-XLA-03213]	c05 N71-11207
Reflector space satellite Patent		Process for interfacial polymerization of pyromellitic dianhydride and 1,2,4,5-tetraamino-benzene Patent	
[NASA-CASE-XLA-00138]	c31 N70-37981	[NASA-CASE-XLA-03104]	c06 N71-11235
Variable-geometry winged reentry vehicle Patent		Imidazopyrrolone/imide copolymers Patent	
[NASA-CASE-XLA-00241]	c31 N70-37986	[NASA-CASE-XLA-08802]	c06 N71-11238
Vehicle parachute and equipment jettison system Patent		Adaptive compression of communication signals Patent	
[NASA-CASE-XLA-00195]	c02 N70-38009	[NASA-CASE-XLA-03076]	c07 N71-11266
Landing arrangement for aerospace vehicle Patent		Reentry communication by material addition Patent	
[NASA-CASE-XLA-00805]	c31 N70-38010	[NASA-CASE-XLA-01552]	c07 N71-11284
Antenna system using parasitic elements and two driven elements at 90 deg angle fed 180 deg out of phase Patent		Cooperative Doppler radar system Patent	
[NASA-CASE-XLA-00414]	c07 N70-38200	[NASA-CASE-XLA-10403]	c21 N71-11766
Despin weight release Patent		Supersonic aircraft Patent	
[NASA-CASE-XLA-00679]	c15 N70-38601	[NASA-CASE-XLA-04451]	c02 N71-12243
Manned space station Patent		Umbilical disconnect Patent	
[NASA-CASE-XLA-00258]	c31 N70-38676	[NASA-CASE-XLA-00711]	c03 N71-12258
Missile stage separation indicator and stage initiator Patent		Remote controlled tubular disconnect Patent	
[NASA-CASE-XLA-00791]	c03 N70-39930	[NASA-CASE-XLA-01396]	c03 N71-12259
Apparatus for producing high purity silicon carbide crystals Patent		Backpack carrier Patent	
[NASA-CASE-XLA-02057]	c26 N70-40015	[NASA-CASE-XLA-10056]	c05 N71-12351
Miniature vibration isolator Patent		Optical communications system Patent	
[NASA-CASE-XLA-01019]	c15 N70-40156	[NASA-CASE-XLA-01090]	c07 N71-12389
Aircraft instrument Patent		Analog to digital converter Patent	
[NASA-CASE-XLA-00487]	c14 N70-40157	[NASA-CASE-XLA-00670]	c08 N71-12501
Radiation direction detector including means for compensating for photocell aging Patent		Integrated time shared instrumentation display Patent	
[NASA-CASE-XLA-00183]	c14 N70-40239	[NASA-CASE-XLA-01952]	c08 N71-12507
Passive communication satellite Patent		SCR blocking pulse gate amplifier Patent	
[NASA-CASE-XLA-00210]	c30 N70-40309	[NASA-CASE-XLA-07497]	c09 N71-12514
Electrostatic plasma modulator for space vehicle re-entry communication Patent		Minimum induced drag airfoil body Patent	
[NASA-CASE-XLA-01400]	c07 N70-41331	[NASA-CASE-XLA-00755]	c01 N71-13410
Micrometeoroid velocity measuring device Patent		Minimum induced drag airfoil body Patent	
[NASA-CASE-XLA-00495]	c14 N70-41332	[NASA-CASE-XLA-05828]	c01 N71-13411
Method of obtaining permanent record of surface flow phenomena Patent		Mechanical stability augmentation system Patent	
[NASA-CASE-XLA-01353]	c14 N70-41366	[NASA-CASE-XLA-06339]	c02 N71-13422
Means for communicating through a layer of ionized gases Patent		Automatic balancing device Patent	
[NASA-CASE-XLA-01127]	c07 N70-41372	[NASA-CASE-XLA-10774]	c10 N71-13545
Quick release separation mechanism Patent		Quick release connector Patent	
[NASA-CASE-XLA-01441]	c15 N70-41679	[NASA-CASE-XLA-01141]	c15 N71-13789
Flexible wing deployment device Patent		Spacecraft experiment pointing and attitude control system Patent	
[NASA-CASE-XLA-01220]	c02 N70-41863	[NASA-CASE-XLA-05464]	c21 N71-14132
Self-sealing, unbonded, rocket motor nozzle closure Patent		Pressurized cell micrometeoroid detector Patent	
[NASA-CASE-XLA-02651]	c28 N70-41967	[NASA-CASE-XLA-00936]	c14 N71-14996
Fatigue testing device Patent		Crossed-field MHD plasma generator/accelerator Patent	
[NASA-CASE-XLA-02131]	c32 N70-42003	[NASA-CASE-XLA-03374]	c25 N71-15562
Techniques for insulating cryogenic fuel containers Patent		Adjustable attitude guide device Patent	
[NASA-CASE-XLA-01967]	c31 N70-42015	[NASA-CASE-XLA-07911]	c15 N71-15571
		Control system for rocket vehicles Patent	
		[NASA-CASE-XLA-01163]	c21 N71-15582
		Excessive temperature warning system Patent	
		[NASA-CASE-XLA-01926]	c14 N71-15620

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Alleviation of divergence during rocket launch Patent			
[NASA-CASE-XLA-00256]	c31	N71-15663	
Space capsule Patent			
[NASA-CASE-XLA-01332]	c31	N71-15664	
Variable geometry manned orbital vehicle Patent			
[NASA-CASE-XLA-03691]	c31	N71-15674	
Payload/burned-out motor case separation system Patent			
[NASA-CASE-XLA-05369]	c31	N71-15687	
Velocity package Patent			
[NASA-CASE-XLA-01339]	c31	N71-15692	
File card marker Patent			
[NASA-CASE-XLA-02705]	c08	N71-15908	
Hypersonic test facility Patent			
[NASA-CASE-XLA-00378]	c11	N71-15925	
Test unit free-flight suspension system Patent			
[NASA-CASE-XLA-00939]	c11	N71-15926	
Reduced gravity simulator Patent			
[NASA-CASE-XLA-01787]	c11	N71-16028	
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent			
[NASA-CASE-XLA-00284]	c15	N71-16075	
Method of coating carbonaceous base to prevent oxidation destruction and coated base Patent			
[NASA-CASE-XLA-00302]	c15	N71-16077	
Separator Patent			
[NASA-CASE-XLA-00415]	c15	N71-16079	
Omnidirectional multiple impact landing system Patent			
[NASA-CASE-XLA-09881]	c31	N71-16085	
Flexible ring slosh damping baffle Patent			
[NASA-CASE-LAR-10317-1]	c32	N71-16103	
Buoyant anti-slosh system Patent			
[NASA-CASE-XLA-04605]	c32	N71-16106	
Detector panels-micrometeoroid impact Patent			
[NASA-CASE-XLA-05906]	c31	N71-16221	
Wind velocity probing device and method Patent			
[NASA-CASE-XLA-02081]	c20	N71-16281	
Vibrating structure displacement measuring instrument Patent			
[NASA-CASE-XLA-03135]	c32	N71-16428	
Viscous-pendulum-damper Patent			
[NASA-CASE-XLA-02079]	c12	N71-16894	
Leak detector Patent			
[NASA-CASE-LAR-10323-1]	c12	N71-17573	
Logic AND gate for fluid circuits Patent			
[NASA-CASE-XLA-07391]	c12	N71-17579	
Contour surveying system Patent			
[NASA-CASE-XLA-08646]	c14	N71-17586	
Cable arrangement for rigid tethering Patent			
[NASA-CASE-XLA-02332]	c32	N71-17609	
Thermal pump-compressor for space use Patent			
[NASA-CASE-XLA-00377]	c33	N71-17610	
Viscous pendulum damper Patent			
[NASA-CASE-LAR-10274-1]	c14	N71-17626	
Self supporting space vehicle Patent			
[NASA-CASE-XLA-00117]	c31	N71-17680	
Technique for control of free-flight rocket vehicles Patent			
[NASA-CASE-XLA-00937]	c31	N71-17691	
Hydraulic grip Patent			
[NASA-CASE-XLA-05100]	c15	N71-17696	
Heat protection apparatus Patent			
[NASA-CASE-XLA-00892]	c33	N71-17897	
Thermopile vacuum gage tube simulator Patent			
[NASA-CASE-XLA-02758]	c14	N71-18481	
Ionization vacuum gauge with all but the end of the ion collector shielded Patent			
[NASA-CASE-XLA-07424]	c14	N71-18482	
Safe-arm initiator Patent			
[NASA-CASE-LAR-10372]	c09	N71-18599	
Controlled glass bead peening Patent			
[NASA-CASE-XLA-07390]	c15	N71-18616	
Exclusive-Or digital logic module Patent			
[NASA-CASE-XLA-07732]	c08	N71-18751	
Slosh alleviator Patent			
[NASA-CASE-XLA-05749]	c15	N71-19569	
G conditioning suit Patent			
[NASA-CASE-XLA-02898]	c05	N71-20268	
Dosimeter for high levels of absorbed radiation Patent			
[NASA-CASE-XLA-03645]	c14	N71-20430	
Flow field simulation Patent			
[NASA-CASE-LAR-11138]	c12	N71-20436	
Variable pulse width multiplier Patent			
[NASA-CASE-XLA-72850]	c09	N71-20447	
Means for measuring the electron density gradients of the plasma sheath formed around a space vehicle Patent			
[NASA-CASE-XLA-06232]	c25	N71-20563	
Null device for hand controller Patent			
[NASA-CASE-XLA-01808]	c15	N71-20740	
Event recorder Patent			
[NASA-CASE-XLA-01832]	c10	N71-21006	
Inflatable support structure Patent			
[NASA-CASE-XLA-01731]	c32	N71-21045	
Fast opening diaphragm Patent			
[NASA-CASE-XLA-03660]	c15	N71-21060	
Ellipsograph for pantograph Patent			
[NASA-CASE-XLA-03102]	c14	N71-21079	
Random function tracer Patent			
[NASA-CASE-XLA-01401]	c15	N71-21179	
Method and apparatus for bonding a plastics sleeve onto a metallic body Patent			
[NASA-CASE-XLA-01262]	c15	N71-21404	
Hypersonic test facility Patent			
[NASA-CASE-XLA-05378]	c11	N71-21475	
Multilegged support system Patent			
[NASA-CASE-XLA-01326]	c11	N71-21481	
Nacelle afterbody for jet engines Patent			
[NASA-CASE-XLA-10450]	c28	N71-21493	
Canister closing device Patent			
[NASA-CASE-XLA-01446]	c15	N71-21528	
Ablation sensor Patent			
[NASA-CASE-XLA-01794]	c33	N71-21586	
Self-repeating plasma generator having communicating annular and linear arc discharge passages Patent			
[NASA-CASE-XLA-03103]	c25	N71-21693	
Attitude control and damping system for spacecraft Patent			
[NASA-CASE-XLA-02551]	c21	N71-21708	
Method of making inflatable honeycomb Patent			
[NASA-CASE-XLA-03492]	c15	N71-22713	
Lunar penetrometer Patent			
[NASA-CASE-XLA-00934]	c14	N71-22765	
Thermal control wall panel Patent			
[NASA-CASE-XLA-01243]	c33	N71-22792	
Attitude sensor for space vehicles Patent			
[NASA-CASE-XLA-00793]	c21	N71-22880	
Omnidirectional microwave spacecraft antenna Patent			
[NASA-CASE-XLA-03114]	c09	N71-22888	
Thermal control panel Patent			
[NASA-CASE-XLA-07728]	c33	N71-22890	
Spacecraft airlock Patent			
[NASA-CASE-XLA-02050]	c31	N71-22968	
Station keeping of a gravity gradient stabilized satellite Patent			
[NASA-CASE-XLA-03132]	c31	N71-22969	
Semi-linear ball bearing Patent			
[NASA-CASE-XLA-02809]	c15	N71-22982	
Heat sensing instrument Patent			
[NASA-CASE-XLA-01551]	c14	N71-22989	
Ablation sensor Patent			
[NASA-CASE-XLA-01791]	c14	N71-22991	
Self-calibrating displacement transducer Patent			
[NASA-CASE-XLA-00781]	c09	N71-22999	
Lateral displacement system for separated rocket stages Patent			
[NASA-CASE-XLA-04804]	c31	N71-23008	
Thermal control coating Patent			
[NASA-CASE-XLA-01995]	c18	N71-23047	
Method of making an inflatable panel Patent			
[NASA-CASE-XLA-03497]	c15	N71-23052	
Variable duration pulse integrator Patent			
[NASA-CASE-XLA-01219]	c10	N71-23084	
Impact energy absorber Patent			
[NASA-CASE-XLA-01530]	c14	N71-23092	
Micrometeoroid penetration measuring device Patent			
[NASA-CASE-XLA-00941]	c14	N71-23240	
Combined optical attitude and altitude indicating instrument Patent			
[NASA-CASE-XLA-01907]	c14	N71-23268	
Solar sensor having coarse and fine sensing with matched preirradiated cells and method of selecting cells Patent			
[NASA-CASE-XLA-01584]	c14	N71-23269	
Variable width pulse integrator Patent			
[NASA-CASE-XLA-03356]	c10	N71-23315	
Leading edge curvature based on convective heating Patent			
[NASA-CASE-XLA-01486]	c01	N71-23497	
Measurement of time differences between luminous events Patent			
[NASA-CASE-XLA-01987]	c23	N71-23976	

Method for measuring the characteristics of a gas Patent
[NASA-CASE-XLA-03375] c16 N71-24074

Laser grating interferometer Patent
[NASA-CASE-XLA-04295] c16 N71-24170

Automatic fatigue test temperature programmer Patent
[NASA-CASE-XLA-02059] c33 N71-24276

Ring wing tension vehicle Patent
[NASA-CASE-XLA-04901] c31 N71-24315

Process for applying black coating to metals Patent
[NASA-CASE-XLA-06199] c15 N71-24875

Velocity limiting safety system Patent
[NASA-CASE-XLA-07473] c15 N71-24895

Strain coupled servo control system Patent
[NASA-CASE-XLA-08530] c32 N71-25360

Method of temperature compensating semiconductor strain gages Patent
[NASA-CASE-XLA-04555-1] c14 N71-25892

Method for improving the signal-to-noise ratio of the Wheatstone bridge type bolometer Patent
[NASA-CASE-XLA-02810] c14 N71-25901

Method of plating copper on aluminum Patent
[NASA-CASE-XLA-08966-1] c17 N71-25903

Laser calibrator Patent
[NASA-CASE-XLA-03410] c16 N71-25914

Thermal protection ablation spray system Patent
[NASA-CASE-XLA-04251] c18 N71-26100

Direct lift control system Patent
[NASA-CASE-LAR-10249-1] c02 N71-26110

Light shield and infrared reflector for fatigue testing Patent
[NASA-CASE-XLA-01782] c14 N71-26136

Dual resonant cavity absorption cell Patent
[NASA-CASE-LAR-10305] c14 N71-26137

Resilience testing device Patent
[NASA-CASE-XLA-08254] c14 N71-26161

Precipitation detector Patent
[NASA-CASE-XLA-02619] c10 N71-26334

Instrument for measuring the dynamic behavior of liquids Patent
[NASA-CASE-XLA-05541] c12 N71-26387

Arbitrarily shaped model survey system Patent
[NASA-CASE-LAR-10098] c32 N71-26681

Dielectric molding apparatus Patent
[NASA-CASE-LAR-10121-1] c15 N71-26721

Method of making a solid propellant rocket motor Patent
[NASA-CASE-XLA-04126] c28 N71-26779

Dynamic vibration absorber Patent
[NASA-CASE-LAR-10083-1] c15 N71-27006

Rate augmented digital to analog converter Patent
[NASA-CASE-XLA-07828] c08 N71-27057

High speed flight vehicle control Patent
[NASA-CASE-XLA-08967] c02 N71-27088

Suspended mass impact damper Patent
[NASA-CASE-LAR-10193-1] c15 N71-27146

Active vibration isolator for flexible bodies Patent
[NASA-CASE-LAR-10106-1] c15 N71-27169

Soldering device Patent
[NASA-CASE-XLA-08911] c15 N71-27214

Fringe counter for interferometers Patent
[NASA-CASE-LAR-10204] c14 N71-27215

Wideband VCO with high phase stability Patent
[NASA-CASE-XLA-03893] c10 N71-27271

Plural position switch status and operativeness checker Patent
[NASA-CASE-XLA-08799] c10 N71-27272

Angular displacement indicating gas bearing support system Patent
[NASA-CASE-XLA-09346] c15 N71-28740

Solid state thermal control polymer coating Patent
[NASA-CASE-XLA-01745] c33 N71-28903

Specialized halogen generator for purification of water Patent
[NASA-CASE-XLA-08913] c14 N71-28933

Optical communications system Patent
[NASA-CASE-XLA-01090] c16 N71-28963

Antenna design for surface wave suppression Patent
[NASA-CASE-XLA-10772] c07 N71-28980

Analog to digital converter tester Patent
[NASA-CASE-XLA-06713] c14 N71-28991

Method of making pressurized panel Patent
[NASA-CASE-XLA-08916] c15 N71-29018

Maksutov spectrograph Patent
[NASA-CASE-XLA-10402] c14 N71-29041

Two component bearing Patent
[NASA-CASE-XLA-00013] c15 N71-29136

Digital pulse width selection circuit Patent
[NASA-CASE-XLA-07788] c09 N71-29139

Magnetically controlled plasma accelerator Patent
[NASA-CASE-XLA-00327] c25 N71-29184

Boring bar drive mechanism Patent
[NASA-CASE-XLA-03661] c15 N71-33518

Wind tunnel model damper Patent
[NASA-CASE-XLA-09480] c11 N71-33612

Variable geometry rotor system
[NASA-CASE-LAR-10557] c02 N72-11018

Flared tube strainer
[NASA-CASE-XLA-05056] c15 N72-11389

Impact measuring technique
[NASA-CASE-LAR-10913] c14 N72-16282

Technique of duplicating fragile core
[NASA-CASE-XLA-07829] c15 N72-16329

Tube fabricating process
[NASA-CASE-LAR-10203-1] c15 N72-16330

Air bearing
[NASA-CASE-WLP-10002] c15 N72-17451

Extensometer frame
[NASA-CASE-XLA-10322] c15 N72-17452

Split range transducer
[NASA-CASE-XLA-11189] c10 N72-20222

Stereo photomicrography system
[NASA-CASE-LAR-10176-1] c14 N72-20380

Radar calibration sphere
[NASA-CASE-XLA-11154] c07 N72-21117

Recorder using selective noise filter
[NASA-CASE-ERC-10112] c07 N72-21119

Stacked array of omnidirectional antennas
[NASA-CASE-LAR-10545-1] c09 N72-21244

Electro-mechanical sine/cosine generator
[NASA-CASE-LAR-10503-1] c09 N72-21248

Fast scan control for deflection type mass spectrometers
[NASA-CASE-LAR-10766-1] c14 N72-21432

Lathe tool bit and holder for machining fiberglass materials
[NASA-CASE-XLA-10470] c15 N72-21489

Pressure operated electrical switch responsive to a pressure decrease after a pressure increase
[NASA-CASE-LAR-10137-1] c09 N72-22204

Variable geometry wind tunnels
[NASA-CASE-XLA-07430] c11 N72-22246

Magnifying scratch gage force transducer
[NASA-CASE-LAR-10496-1] c14 N72-22437

Star image motion compensator
[NASA-CASE-LAR-10523-1] c14 N72-22444

Absolute focus lock for microscopes
[NASA-CASE-LAR-10184] c14 N72-22445

Cryogenic feedthrough
[NASA-CASE-LAR-10031] c15 N72-22484

A technique for breaking ice in the path of a ship
[NASA-CASE-LAR-10815-1] c16 N72-22520

One hand backpack harness
[NASA-CASE-LAR-10102-1] c05 N72-23085

Method and apparatus for mapping the sensitivity of the face of a photodetector specifically a PMT
[NASA-CASE-LAR-10320-1] c09 N72-23172

Omnidirectional slot antenna for mounting on cylindrical space vehicle
[NASA-CASE-LAR-10163-1] c09 N72-25247

Hall effect transducer
[NASA-CASE-LAR-10620-1] c09 N72-25255

Radio frequency filter device
[NASA-CASE-XLA-02609] c09 N72-25256

Parametric amplifiers with idler circuit feedback
[NASA-CASE-LAR-10253-1] c09 N72-25258

Variable angle tube holder
[NASA-CASE-LAR-10507-1] c11 N72-25284

Low mass truss structure
[NASA-CASE-LAR-10546-1] c11 N72-25287

Liquid waste feed system
[NASA-CASE-LAR-10365-1] c05 N72-27102

Microcircuit negative cutter
[NASA-CASE-XLA-09843] c15 N72-27485

Light regulator
[NASA-CASE-LAR-10836-1] c26 N72-27784

Linear explosive comparison
[NASA-CASE-LAR-10800-1] c33 N72-27959

Spherical measurement device
[NASA-CASE-XLA-06683] c14 N72-28436

Method of making semiconductor p-n junction stress and strain sensor
[NASA-CASE-XLA-04980-2] c14 N72-28438

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Screened circuit capacitors [NASA-CASE-LAR-10294-1]	c26 N72-28762	Technique for extending the frequency range of digital dividers [NASA-CASE-LAR-10730-1]	c33 N74-10223
Deposition apparatus [NASA-CASE-LAR-10541-1]	c15 N72-32487	Fluid pressure amplifier and system [NASA-CASE-LAR-10868-1]	c33 N74-11050
Dielectric loaded aperture antenna [NASA-CASE-LAR-11084-1]	c09 N73-12216	Method of making pressure tight seal for super- alloy [NASA-CASE-LAR-10170-1]	c37 N74-11301
Lift balancing device [NASA-CASE-LAR-10348-1]	c11 N73-12264	Adjustable frequency response microphone [NASA-CASE-LAR-11170-1]	c32 N74-12843
Air removal device [NASA-CASE-LAR-8914]	c15 N73-12492	System for calibrating pressure transducer [NASA-CASE-LAR-10910-1]	c35 N74-13132
Nondestructive spot test method for titanium and titanium alloys [NASA-CASE-LAR-10539-1]	c17 N73-12547	Molding process for imidazopyrrolone polymers [NASA-CASE-LAR-10547-1]	c31 N74-13177
Active air cushion control system minimizing vertical cushion response [NASA-CASE-LAR-10531-1]	c02 N73-13023	Lyophilized spore dispenser [NASA-CASE-LAR-10544-1]	c37 N74-13178
Logical function generator [NASA-CASE-LAR-10509-1]	c09 N73-13209	Transmitting and reflecting diffuser [NASA-CASE-LAR-10385-2]	c70 N74-13436
Ferry system [NASA-CASE-LAR-10574-1]	c11 N73-13257	Evacuated displacement compression molding [NASA-CASE-LAR-10782-1]	c31 N74-14133
Flow velocity and directional instrument [NASA-CASE-LAR-10855-1]	c14 N73-13415	Modification of one man life raft [NASA-CASE-LAR-10241-1]	c54 N74-14845
Vortex breech high pressure gas generator [NASA-CASE-LAR-10549-1]	c31 N73-13898	Attitude sensor [NASA-CASE-LAR-10586-1]	c19 N74-15085
Structural panel [NASA-CASE-LAR-11052-1]	c32 N73-13920	Mossbauer spectrometer radiation detector [NASA-CASE-LAR-11155-1]	c35 N74-15091
Butt welder for fine gauge tungsten/rhenium thermocouple wire [NASA-CASE-LAR-10103-1]	c15 N73-14468	In situ transfer standard for ultrahigh vacuum gauge calibration [NASA-CASE-LAR-10862-1]	c35 N74-15092
Method of detecting oxygen in a gas [NASA-CASE-LAR-10668-1]	c06 N73-16106	Dual measurement ablation sensor [NASA-CASE-LAR-10105-1]	c34 N74-15655
Combustion detector [NASA-CASE-LAR-10739-1]	c14 N73-16484	Ejectable underwater sound source recovery assembly [NASA-CASE-LAR-10595-1]	c35 N74-16135
Laser communication system for controlling several functions at a location remote to the laser [NASA-CASE-LAR-10311-1]	c16 N73-16536	Wind tunnel model and method [NASA-CASE-LAR-10812-1]	c09 N74-17955
Apparatus for photographing meteors [NASA-CASE-LAR-10226-1]	c14 N73-19419	High field CdS detector for infrared radiation [NASA-CASE-LAR-11027-1]	c35 N74-18088
Zero gravity liquid mixer [NASA-CASE-LAR-10195-1]	c15 N73-19458	Method of fabricating an article with cavities [NASA-CASE-LAR-10318-1]	c31 N74-18089
Cascade plug nozzle [NASA-CASE-LAR-10951-1]	c28 N73-19819	Apparatus for remote handling of materials [NASA-CASE-LAR-10638-1]	c37 N74-18123
Rate data encoder [NASA-CASE-LAR-10128-1]	c08 N73-20217	Method for compression molding of thermosetting plastics utilizing a temperature gradient across the plastic to cure the article [NASA-CASE-LAR-10489-1]	c31 N74-18124
Function generator for synthesizing complex vibration mode patterns [NASA-CASE-LAR-10310-1]	c10 N73-20253	Method for determining thermo-physical properties of specimens [NASA-CASE-LAR-11053-1]	c25 N74-18551
Infrared horizon locator [NASA-CASE-LAR-10726-1]	c14 N73-20475	Anti-buckling fatigue test assembly [NASA-CASE-LAR-10426-1]	c09 N74-19528
Electrical resistance spot welding and brazing techniques for metal bonding [NASA-CASE-LAR-11072-1]	c15 N73-20535	Aromatic polyimide preparation [NASA-CASE-LAR-11372-1]	c27 N74-19772
Light intensity strain analysis [NASA-CASE-LAR-10765-1]	c32 N73-20740	Reefing system [NASA-CASE-LAR-10129-2]	c37 N74-20063
Anti-meteoroid device [NASA-CASE-LAR-10788-1]	c31 N73-20880	A synchronous binary array divider [NASA-CASE-LAR-10180-1]	c60 N74-20836
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds [NASA-CASE-LAR-10578-1]	c12 N73-25262	Orbital and entry tracking accessory for globes [NASA-CASE-LAR-10626-1]	c19 N74-21015
Cable restraint [NASA-CASE-LAR-10129-1]	c15 N73-25512	Digital controller for a Baum folding machine [NASA-CASE-LAR-10688-1]	c37 N74-21056
Quiet jet transport aircraft [NASA-CASE-LAR-11087-1]	c02 N73-26008	Totally confined explosive welding [NASA-CASE-LAR-10941-1]	c37 N74-21057
Electronic strain-level counter [NASA-CASE-LAR-10756-1]	c32 N73-26910	Method of fabricating an object with a thin wall having a precisely shaped slit [NASA-CASE-LAR-10409-1]	c31 N74-21059
Nondestructive spot test method for magnesium and magnesium alloys [NASA-CASE-LAR-10953-1]	c17 N73-27446	Deployable pressurized cell structure for a micrometeoroid detector [NASA-CASE-LAR-10295-1]	c35 N74-21062
Ablation article and method [NASA-CASE-LAR-10439-1]	c33 N73-27796	Means for accommodating large overstrain in lead wires [NASA-CASE-LAR-10168-1]	c33 N74-22865
Apparatus and method for generating large mass flow of high temperature air at hypersonic speeds [NASA-CASE-LAR-10612-1]	c12 N73-28144	Bonded joint and method [NASA-CASE-LAR-10900-1]	c37 N74-23064
Pressurized panel [NASA-CASE-LAR-08916-2]	c14 N73-28487	Light shield and cooling apparatus [NASA-CASE-LAR-10089-1]	c34 N74-23066
Apparatus for aiding a pilot in avoiding a midair collision between aircraft [NASA-CASE-LAR-10717-1]	c21 N73-30641	Method of laminating structural members [NASA-CASE-LAR-11028-1]	c24 N74-27035
Exposure interlock for oscilloscope cameras [NASA-CASE-LAR-10319-1]	c14 N73-32322	Rocket having barium release system to create ion clouds in the upper atmosphere [NASA-CASE-LAR-10670-2]	c15 N74-27360
Meteoroid detector [NASA-CASE-LAR-10483-1]	c14 N73-32327	Apparatus for inserting and removing specimens from high temperature vacuum furnaces [NASA-CASE-LAR-10841-1]	c31 N74-27900
Lightweight, variable solidity knitted parachute fabric [NASA-CASE-LAR-10776-1]	c02 N74-10034	Grinding arrangement for ball nose milling cutters [NASA-CASE-LAR-10450-1]	c37 N74-27905
		Method of repairing discontinuity in fiberglass structures [NASA-CASE-LAR-10416-1]	c24 N74-30001

Real time liquid crystal image converter
[NASA-CASE-LAR-11206-1] c74 N74-30118

Deployable flexible ventral fins for use as an
emergency spin recovery device in aircraft
[NASA-CASE-LAR-10753-1] c08 N74-30421

Apparatus for applying simulator g-forces to an
arm of an aircraft simulator pilot
[NASA-CASE-LAR-10550-1] c09 N74-30597

Centrifugal lyophobic separator
[NASA-CASE-LAR-10194-1] c34 N74-30608

Variably positioned guide vanes for aerodynamic
choking
[NASA-CASE-LAR-10642-1] c07 N74-31270

Noise suppressor
[NASA-CASE-LAR-11141-1] c07 N74-32418

Measuring probe position recorder
[NASA-CASE-LAR-10806-1] c35 N74-32877

Ignition pressure probe
[NASA-CASE-LAR-11139-1] c35 N74-32878

Holding apparatus
[NASA-CASE-LAR-10489-2] c31 N74-32920

Remote fire stack igniter
[NASA-CASE-MFS-21675-1] c25 N74-33378

Open tube guideway for high speed air cushioned
vehicles
[NASA-CASE-LAR-10256-1] c85 N74-34672

Fast scan control for deflection type mass
spectrometers
[NASA-CASE-LAR-11428-1] c35 N74-34857

Miniature hydraulic actuator
[NASA-CASE-LAR-11522-1] c34 N74-34881

Apparatus for microbiological sampling
[NASA-CASE-LAR-11069-1] c35 N75-12272

Method of making an explosively welded scarf joint
[NASA-CASE-LAR-11211-1] c37 N75-12326

Determining particle density using known
material Hugoniot curves
[NASA-CASE-LAR-11059-1] c76 N75-12810

Method for making conductors for ferrite memory
arrays
[NASA-CASE-LAR-10994-1] c24 N75-13032

Growth of gallium nitride crystals
[NASA-CASE-LAR-11302-1] c25 N75-13054

Evacuated, displacement compression mold
[NASA-CASE-LAR-10782-2] c31 N75-13111

Servo valve
[NASA-CASE-LAR-11643-1] c37 N75-13268

Automatic inoculating apparatus
[NASA-CASE-LAR-11074-1] c51 N75-13502

Automatic focus control for facsimile cameras
[NASA-CASE-LAR-11213-1] c35 N75-15014

Kinesthetic control simulator
[NASA-CASE-LAR-10276-1] c09 N75-15662

Electrostatic measurement system
[NASA-CASE-MFS-22129-1] c33 N75-18477

Automatic liquid inventory collecting and
dispensing unit
[NASA-CASE-LAR-11071-1] c35 N75-19611

Vacuum leak detector
[NASA-CASE-LAR-11237-1] c35 N75-19612

Spectrometer integrated with a facsimile camera
[NASA-CASE-LAR-11207-1] c35 N75-19613

Instrumentation for measurement of aircraft
noise and sonic boom
[NASA-CASE-LAR-11173-1] c35 N75-19614

Laser head for simultaneous optical pumping of
several dye lasers
[NASA-CASE-LAR-11341-1] c36 N75-19655

High lift aircraft
[NASA-CASE-LAR-11252-1] c05 N75-25914

Vapor phase growth of groups 3-5 compounds by
hydrogen chloride transport of the elements
[NASA-CASE-LAR-11144-1] c25 N75-26043

Resonant waveguide stark cell
[NASA-CASE-LAR-11352-1] c33 N75-26245

Fluid control apparatus and method
[NASA-CASE-LAR-11110-1] c34 N75-26282

Electrolytic cell structure
[NASA-CASE-LAR-11042-1] c33 N75-27252

Automatic microbial transfer device
[NASA-CASE-LAR-11354-1] c35 N75-27330

Polyimide adhesives
[NASA-CASE-LAR-11397-1] c27 N75-29263

Bonding method in the manufacture of
regression rate sensor devices
[NASA-CASE-LAR-10337-1] c24 N75-30260

Varying density composite structure
[NASA-CASE-LAR-11181-1] c39 N75-31479

Meteoroid impact position locator aid for manned
space station
[NASA-CASE-LAR-10629-1] c35 N75-33367

Measurement of gas production of microorganisms
[NASA-CASE-LAR-11326-1] c35 N75-33368

Self-supporting strain transducer
[NASA-CASE-LAR-11263-1] c35 N75-33369

Annular momentum control device used for
stabilization of space vehicles and the like
[NASA-CASE-LAR-11051-1] c15 N76-14158

Multichannel logarithmic RF level detector
[NASA-CASE-LAR-11021-1] c32 N76-14321

Turnstile and flared cone UHF antenna
[NASA-CASE-LAR-10970-1] c33 N76-14372

Static pressure probe
[NASA-CASE-LAR-11552-1] c35 N76-14429

Horn antenna having V-shaped corrugated slots
[NASA-CASE-LAR-11112-1] c32 N76-15330

Ultrasonic calibration device
[NASA-CASE-LAR-11435-1] c35 N76-15432

Deploy/release system
[NASA-CASE-LAR-11575-1] c02 N76-16014

Clock setter
[NASA-CASE-LAR-11458-1] c35 N76-16392

Heat exchanger system and method
[NASA-CASE-LAR-10799-2] c34 N76-17317

Stack plume visualization system
[NASA-CASE-LAR-11675-1] c45 N76-17656

Cascade plug nozzle
[NASA-CASE-LAR-11674-1] c07 N76-18117

Magnetic suspension and pointing system
[NASA-CASE-LAR-11889-1] c19 N76-18227

Exhaust flow deflector
[NASA-CASE-LAR-11570-1] c34 N76-18364

Method and apparatus for tensile testing of
metal foil
[NASA-CASE-LAR-10208-1] c35 N76-18400

Method and apparatus for fluffing, separating,
and cleaning fibers
[NASA-CASE-LAR-11224-1] c37 N76-18456

Therapeutic hand exerciser
[NASA-CASE-LAR-11667-1] c52 N76-19785

Magnetic heading reference
[NASA-CASE-LAR-11387-1] c04 N76-20114

Apparatus for positioning modular components on
a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554

Airfoil shape for flight at subsonic
speeds
[NASA-CASE-LAR-10585-1] c02 N76-22154

Particulate and aerosol detector
[NASA-CASE-LAR-11434-1] c35 N76-22509

Air removal device
[NASA-CASE-XLA-8914-2] c34 N76-23522

High temperature strain gage calibration fixture
[NASA-CASE-LAR-11500-1] c35 N76-24523

Vacuum pressure molding technique
[NASA-CASE-LAR-10073-1] c37 N76-24575

Instrumentation for measuring aircraft noise and
sonic boom
[NASA-CASE-LAR-11476-1] c07 N76-27232

Connector
[NASA-CASE-LAR-11709-1] c37 N76-27567

Capillary flow weld-bonding
[NASA-CASE-LAR-11726-1] c37 N76-27568

Detector absorptivity measuring method and
apparatus
[NASA-CASE-LAR-10907-1] c35 N76-29551

Turbulence intensity indicator
[NASA-CASE-LAR-11833-1] c06 N76-31229

Method for detecting pollutants
[NASA-CASE-LAR-11405-1] c45 N76-31714

Zero gravity separator
[NASA-CASE-LAR-10344-1] c35 N76-33470

Wingtip vortex dissipator for aircraft
[NASA-CASE-LAR-11645-1] c02 N77-10001

Casting propellant in rocket engine
[NASA-CASE-LAR-11995-1] c28 N77-10213

Anti-multipath digital signal detector
[NASA-CASE-LAR-11827-1] c32 N77-10392

Two wavelength double pulse tunable dye laser
[NASA-CASE-LAR-12012-1] c36 N77-10517

Weld-bonded titanium structures
[NASA-CASE-LAR-11549-1] c37 N77-11397

Auxiliary power system for activity cooled
aircraft
[NASA-CASE-LAR-11626-1] c34 N77-12332

Phase modulating with odd and even finite power
series of a modulating signal
[NASA-CASE-LAR-11607-1] c32 N77-14292

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Miniature biaxial strain transducer [NASA-CASE-LAR-11648-1]	c35 N77-14407	Solar cell angular position transducer [NASA-CASE-LAR-11999-1]	c35 N78-18394
Precision alignment apparatus for cutting a workpiece [NASA-CASE-LAR-11658-1]	c37 N77-14478	Drop foot corrective device [NASA-CASE-LAR-12259-1]	c54 N78-18762
Aircraft design concept [NASA-CASE-LAR-11852-1]	c05 N77-15027	Partial interlaminar separation system for composites [NASA-CASE-LAR-12065-1]	c24 N78-22162
Apparatus and method for jet noise suppression [NASA-CASE-LAR-11903-1]	c07 N77-15036	Improved tire/wheel concept [NASA-CASE-LAR-11695-1]	c37 N78-22374
Solid propellant rocket motor and method of making same [NASA-CASE-LAR-1349]	c20 N77-17143	Kine-Pak: A self-contained, electrical power generator system [NASA-CASE-LAR-11551-1]	c44 N78-22468
Particulate and solar radiation stable coating for spacecraft [NASA-CASE-LAR-10805-2]	c34 N77-18382	High-temperature microphone system [NASA-CASE-LAR-12375-1]	c32 N78-23275
Magnetic heading reference [NASA-CASE-LAR-11387-2]	c04 N77-19056	Combined solar collector and energy storage system [NASA-CASE-LAR-12205-1]	c44 N78-23567
Crosswind landing gear position indicator [NASA-CASE-LAR-11941-1]	c06 N77-20098	Molded composite pyrogen igniter for rocket motors [NASA-CASE-LAR-12018-1]	c20 N78-24275
Binocular device for displaying numerical information in field of view [NASA-CASE-LAR-11782-1]	c74 N77-20882	Crystalline polyimides [NASA-CASE-LAR-12099-1]	c27 N78-24360
Method of locating persons in distress [NASA-CASE-LAR-11390-1]	c32 N77-21267	Non-destructive method for applying and removing instrumentation on helicopter rotor blades [NASA-CASE-LAR-11201-1]	c35 N78-24515
Vortex attenuation method [NASA-CASE-LAR-12034-1]	c02 N77-22045	Small air breathing launch vehicle [NASA-CASE-LAR-12250-1]	c15 N78-25120
Amplifying ribbon extensometer [NASA-CASE-LAR-11825-1]	c35 N77-22449	Two dimensional wedge/translating shroud nozzle [NASA-CASE-LAR-11919-1]	c07 N78-27121
Method of forming shrink-fit compression seal [NASA-CASE-LAR-11563-1]	c37 N77-23482	Remote water monitoring system [NASA-CASE-LAR-11973-1]	c35 N78-27384
Collapsible corrugated horn antenna [NASA-CASE-LAR-11745-1]	c32 N77-24339	Magnetic suspension and pointing system [NASA-CASE-LAR-11889-2]	c37 N78-27424
Vortex generator for controlling the dispersion of effluents in a flowing liquid [NASA-CASE-LAR-12045-1]	c34 N77-24423	Device for measuring the contour of a surface [NASA-CASE-LAR-11869-1]	c74 N78-27904
Process for control of cell division [NASA-CASE-LAR-10773-3]	c51 N77-25769	Microstrip back-fire antenna [NASA-CASE-LAR-12172-1]	c32 N78-29310
Electro-mechanical sine/cosine generator [NASA-CASE-LAR-11389-1]	c33 N77-26387	Laser Doppler velocity simulator [NASA-CASE-LAR-12176-1]	c36 N78-29435
Apparatus for determining thermophysical properties of test specimens [NASA-CASE-LAR-11883-1]	c09 N77-27131	A phase insensitive ultrasonic transducer [NASA-CASE-LAR-12304-1]	c71 N78-29871
Lightweight structural columns [NASA-CASE-LAR-12095-1]	c39 N77-27432	A seat cushion to provide realistic acceleration cues for aircraft simulator pilots [NASA-CASE-LAR-12149-2]	c54 N78-30821
Automated single-slide staining device [NASA-CASE-LAR-11649-1]	c51 N77-27677	Displacement probes with self-contained exciting medium [NASA-CASE-LAR-11690-1]	c35 N78-31406
Dual cycle aircraft turbine engine [NASA-CASE-LAR-11310-1]	c07 N77-28118	Supersonic transport [NASA-CASE-LAR-11932-1]	c05 N78-32086
Variable dihedral shuttle orbiter [NASA-CASE-LAR-10706-2]	c05 N77-31132	Hypersonic airbreathing missile [NASA-CASE-LAR-12264-1]	c15 N78-32168
Composite sandwich lattice structure [NASA-CASE-LAR-11898-1]	c24 N78-10214	Process for preparing thermoplastic aromatic polyimides [NASA-CASE-LAR-11828-1]	c27 N78-32261
Differential sound level meter [NASA-CASE-LAR-12106-1]	c71 N78-14867	Magnetometer with a miniature transducer and automatic scanning [NASA-CASE-LAR-11617-2]	c35 N78-32397
Thermoluminescent aerosol analysis [NASA-CASE-LAR-12046-1]	c25 N78-15210	Visible and infrared polarization ratio spectroreflectometer [NASA-CASE-LAR-12285-1]	c35 N78-32398
CW ultrasonic bolt tensioning monitor [NASA-CASE-LAR-12016-1]	c39 N78-15512	Dual acting slit control mechanism [NASA-CASE-LAR-11370-1]	c35 N78-32399
Solar heating system [NASA-CASE-LAR-12009-1]	c44 N78-15560	Independent power generator [NASA-CASE-LAR-11208-1]	c44 N78-32539
Transmitting and reflecting diffuser [NASA-CASE-LAR-10385-3]	c74 N78-15879	Static pressure orifice system testing and apparatus [NASA-CASE-LAR-12269-1]	c09 N78-33123
Rotary target V-block [NASA-CASE-LAR-12007-1]	c74 N78-15883	Telescoping columns [NASA-CASE-LAR-12195-1]	c37 N78-33446
TV fatigue crack monitoring system [NASA-CASE-LAR-11490-1]	c39 N78-16387	Radar target remotely sensing hydrological phenomena [NASA-CASE-LAR-12344-1]	c43 N78-33511
Filtering technique based on high-frequency plant modeling for high-gain control [NASA-CASE-LAR-12215-1]	c08 N78-17070	Pseudo continuous wave instrument [NASA-CASE-LAR-12260-1]	c35 N79-10390
Method of making a composite sandwich lattice structure [NASA-CASE-LAR-11898-2]	c24 N78-17149	Smokestack-mounted airfoil [NASA-CASE-LAR-11669-1]	c45 N79-10570
Composite lamination method [NASA-CASE-LAR-12019-1]	c24 N78-17150	Nozzle extraction process and handlemeter for measuring handle [NASA-CASE-LAR-12147-1]	c31 N79-11246
Electrochemical data signal process and display [NASA-CASE-LAR-11922-1]	c25 N78-17171	Method and tool for machining a transverse slot about a bore [NASA-CASE-LAR-11855-1]	c31 N79-11249
Polyimide adhesives [NASA-CASE-LAR-12181-1]	c27 N78-17205	Noncontacting method for measuring angular deflection [NASA-CASE-LAR-12178-1]	c74 N79-11866
Thermal shock and erosion resistant tantalum carbide ceramic material [NASA-CASE-LAR-11902-1]	c27 N78-17206	Fluid velocity measuring device [NASA-CASE-LAR-11729-1]	c34 N79-12359
Mixed diamines for lower melting addition polyimide preparation and utilization [NASA-CASE-LAR-12054-1]	c27 N78-17218	Totally confined explosive welding [NASA-CASE-LAR-10941-2]	c37 N79-13364
Optical scanner [NASA-CASE-LAR-11711-1]	c74 N78-17866	Vortex-lift roll-control device [NASA-CASE-LAR-11868-2]	c08 N79-14108
Fuselage structure using advanced technology metal matrix fiber reinforced composites [NASA-CASE-LAR-11688-1]	c05 N78-18045		

Electronically scanned pressure sensor module with in SITU calibration capability
[NASA-CASE-LAR-12230-1] c35 N79-14347

Versatile LDV burst simulator
[NASA-CASE-LAR-11859-1] c35 N79-14349

Locking redundant link
[NASA-CASE-LAR-11900-1] c37 N79-14382

Chronometrically corrected virtual image display
[NASA-CASE-LAR-12251-1] c74 N79-14892

Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c08 N79-15057

Detection of the transitional layer between laminar and turbulent flow areas on a wing surface
[NASA-CASE-LAR-12261-1] c02 N79-16805

Aerodynamic side-force alleviator means
[NASA-CASE-LAR-12326-1] c02 N79-17813

Adaptive polarization separation experiments
[NASA-CASE-LAR-12196-1] c32 N79-18154

Apparatus for measuring an aircraft's speed and height
[NASA-CASE-LAR-12275-1] c35 N79-18296

Volumetric direct nuclear pumped laser
[NASA-CASE-LAR-12183-1] c36 N79-18307

Mixed diamines for lower melting addition polyimide preparation and utilization
[NASA-CASE-LAR-12054-2] c27 N79-19160

A pitch attitude stabilization system utilizing engine pressure ratio feedback signals
[NASA-CASE-LAR-12562-1] c08 N79-20135

A velocity vector control system augmented with direct lift control
[NASA-CASE-LAR-12268-1] c08 N79-20136

Wind tunnel
[NASA-CASE-LAR-10135-1] c09 N79-21083

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
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Foil seal
[NASA-CASE-XLE-05130] c15 N69-21362

Fluid jet amplifier
[NASA-CASE-XLE-03512] c12 N69-21466

Electrode and insulator with shielded dielectric junction
[NASA-CASE-XLE-03778] c09 N69-21542

Thin window, drifted silicon, charged particle detector
[NASA-CASE-XLE-10529] c14 N69-23191

Probes having ring and primary sensor at same potential to prevent collection of stray wall currents in ionized gases
[NASA-CASE-XLE-00690] c25 N69-39884

Ion thruster cathode
[NASA-CASE-XLE-07087] c06 N69-39889

Superconducting alternator
[NASA-CASE-XLE-02824] c03 N69-39890

Triode thermionic energy converter
[NASA-CASE-XLE-01015] c03 N69-39898

Slug flow magnetohydrodynamic generator
[NASA-CASE-XLE-02083] c03 N69-39983

Reduced gravity liquid configuration simulator
[NASA-CASE-XLE-02624] c12 N69-39988

Transpiration cooled turbine blade manufactured from wires Patent
[NASA-CASE-XLE-00020] c15 N70-33226

Rocket propellant injector Patent
[NASA-CASE-XLE-00103] c28 N70-33241

Modification and improvements to cooled blades Patent
[NASA-CASE-XLE-00092] c15 N70-33264

Colloid propulsion method and apparatus Patent
[NASA-CASE-XLE-00817] c28 N70-33265

High-vacuum condenser tank for ion rocket tests Patent
[NASA-CASE-XLE-00168] c11 N70-33278

High temperature nickel-base alloy Patent
[NASA-CASE-XLE-00151] c17 N70-33283

Annular rocket motor and nozzle configuration Patent
[NASA-CASE-XLE-00078] c28 N70-33284

Reinforced metallic composites Patent
[NASA-CASE-XLE-02428] c17 N70-33288

Process for applying a protective coating for salt bath brazing Patent
[NASA-CASE-XLE-00046] c15 N70-33311

Wire grid forming apparatus Patent
[NASA-CASE-XLE-00023] c15 N70-33330

Electro-thermal rocket Patent
[NASA-CASE-XLE-00267] c28 N70-33356

External liquid-spray cooling of turbine blades Patent
[NASA-CASE-XLE-00037] c28 N70-33372

Apparatus for igniting solid propellants Patent
[NASA-CASE-XLE-00207] c28 N70-33375

Flexible seal for valves Patent
[NASA-CASE-XLE-00101] c15 N70-33376

Apparatus for making a metal slurry product Patent
[NASA-CASE-XLE-00010] c15 N70-33382

Energy conversion apparatus Patent
[NASA-CASE-XLE-00212] c03 N70-34134

Enthalpy and stagnation temperature determination of a high temperature laminar flow gas stream Patent
[NASA-CASE-XLE-00266] c14 N70-34156

Electrothermal rockets having improved heat exchangers Patent
[NASA-CASE-XLE-01783] c28 N70-34175

Venting vapor apparatus Patent
[NASA-CASE-XLE-00288] c15 N70-34247

Electrostatic propulsion system with a direct nuclear electrogenerator Patent
[NASA-CASE-XLE-00818] c22 N70-34248

Thrust vector control apparatus Patent
[NASA-CASE-XLE-00208] c28 N70-34294

Nuclear reactor control rod assembly with improved driving mechanism Patent
[NASA-CASE-XLE-00298] c22 N70-34501

High temperature heat source Patent
[NASA-CASE-XLE-00490] c33 N70-34545

Gaseous nuclear rocket Patent
[NASA-CASE-XLE-00321] c22 N70-34572

Simulated fuel assembly Patent
[NASA-CASE-XLE-00724] c14 N70-34669

Inlet deflector for jet engines Patent
[NASA-CASE-XLE-00388] c28 N70-34788

Radiant heater having formed filaments Patent
[NASA-CASE-XLE-00387] c33 N70-34812

Optical torque meter Patent
[NASA-CASE-XLE-00503] c14 N70-34818

Electric propulsion engine test chamber Patent
[NASA-CASE-XLE-00252] c11 N70-34844

Conical valve plug Patent
[NASA-CASE-XLE-00715] c15 N70-34859

Channel-type shell construction for rocket engines and the like Patent
[NASA-CASE-XLE-00144] c28 N70-34860

Non-reusable kinetic energy absorber Patent
[NASA-CASE-XLE-00810] c15 N70-34861

High temperature testing apparatus Patent
[NASA-CASE-XLE-00335] c14 N70-35368

Ion thruster cathode Patent Application
[NASA-CASE-XLE-10814-1] c28 N70-35422

Formed metal ribbon wrap Patent
[NASA-CASE-XLE-00164] c15 N70-36411

Multistage multiple-reentry turbine Patent
[NASA-CASE-XLE-00170] c15 N70-36412

Fluid coupling Patent
[NASA-CASE-XLE-00397] c15 N70-36492

Injector-valve device Patent
[NASA-CASE-XLE-00303] c15 N70-36535

Nickel-base alloy Patent
[NASA-CASE-XLE-00283] c17 N70-36616

Apparatus having coaxial capacitor structure for measuring fluid density Patent
[NASA-CASE-XLE-00143] c14 N70-36618

Rocket thrust chamber Patent
[NASA-CASE-XLE-00145] c28 N70-36806

Solid state power mapping instrument Patent
[NASA-CASE-XLE-00301] c14 N70-36808

Ion rocket Patent
[NASA-CASE-XLE-00376] c28 N70-37245

Annular supersonic decelerator or drogue Patent
[NASA-CASE-XLE-00222] c02 N70-37939

Rocket engine Patent
[NASA-CASE-XLE-00342] c28 N70-37980

Variable sweep aircraft wing Patent
[NASA-CASE-XLE-00350] c02 N70-38011

Apparatus for transferring cryogenic liquids Patent
[NASA-CASE-XLE-00345] c15 N70-38020

Method of producing porous tungsten ionizers for ion rocket engines Patent
[NASA-CASE-XLE-00455] c28 N70-38197

Method of making fiber reinforced metallic composites Patent
[NASA-CASE-XLE-00231] c17 N70-38198

Rocket engine injector Patent
[NASA-CASE-XLE-00111] c28 N70-38199

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Reinforced metallic composites Patent			
[NASA-CASE-XLE-00228]	c17	N70-38490	
Rocket motor system Patent			
[NASA-CASE-XLE-00323]	c28	N70-38505	
Particle beam measurement apparatus using beam kinetic energy to change the heat sensitive resistance of the detection probe Patent			
[NASA-CASE-XLE-00243]	c14	N70-38602	
Penshape exhaust nozzle for supersonic engine Patent			
[NASA-CASE-XLE-00057]	c28	N70-38711	
Multistage multiple-reentry turbine Patent			
[NASA-CASE-XLE-00085]	c28	N70-39895	
Gas lubricant compositions Patent			
[NASA-CASE-XLE-00353]	c18	N70-39897	
Telescoping-spike supersonic inlet for aircraft engines Patent			
[NASA-CASE-XLE-00005]	c28	N70-39899	
High temperature spark plug Patent			
[NASA-CASE-XLE-00660]	c28	N70-39925	
Low viscosity magnetic fluid obtained by the colloidal suspension of magnetic particles Patent			
[NASA-CASE-XLE-01512]	c12	N70-40124	
Apparatus for absorbing and measuring power Patent			
[NASA-CASE-XLE-00720]	c14	N70-40201	
Device for directionally controlling electromagnetic radiation Patent			
[NASA-CASE-XLE-01716]	c09	N70-40234	
Method for continuous variation of propellant flow and thrust in propulsive devices Patent			
[NASA-CASE-XLE-00177]	c28	N70-40367	
Apparatus for increasing ion engine beam density Patent			
[NASA-CASE-XLE-00519]	c28	N70-41576	
Foldable conduit Patent			
[NASA-CASE-XLE-00620]	c32	N70-41579	
Liquid storage tank venting device for zero gravity environment Patent			
[NASA-CASE-XLE-01449]	c15	N70-41646	
Method of making a regeneratively cooled combustion chamber Patent			
[NASA-CASE-XLE-00150]	c28	N70-41818	
Instrument for the quantitative measurement of radiation at multiple wave lengths Patent			
[NASA-CASE-XLE-00011]	c14	N70-41946	
Small rocket engine Patent			
[NASA-CASE-XLE-00685]	c28	N70-41992	
Apparatus for positioning and loading a test specimen Patent			
[NASA-CASE-XLE-01300]	c15	N70-41993	
Liquid flow sight assembly Patent			
[NASA-CASE-XLE-02998]	c14	N70-42074	
Inductive liquid level detection system Patent			
[NASA-CASE-XLE-01609]	c14	N71-10500	
Method of forming thin window drifted silicon charged particle detector Patent			
[NASA-CASE-XLE-00808]	c24	N71-10560	
Electrostatic thruster with improved insulators Patent			
[NASA-CASE-XLE-01902]	c28	N71-10574	
Thin-walled pressure vessel Patent			
[NASA-CASE-XLE-04677]	c15	N71-10577	
Method of making a silicon semiconductor device Patent			
[NASA-CASE-XLE-02792]	c26	N71-10607	
Metallic film diffusion for boundary lubrication Patent			
[NASA-CASE-XLE-01765]	c18	N71-10772	
Molecular beam velocity selector Patent			
[NASA-CASE-XLE-01533]	c11	N71-10777	
Meteoroid sensing apparatus having a coincidence network connected to a pair of capacitors Patent			
[NASA-CASE-XLE-01246]	c14	N71-10797	
Capacitor and method of making same Patent			
[NASA-CASE-XLE-10364-1]	c09	N71-13522	
Capillary radiator Patent			
[NASA-CASE-XLE-03307]	c33	N71-14035	
Electrostatic ion engine having a permanent magnetic circuit Patent			
[NASA-CASE-XLE-01124]	c28	N71-14043	
Split welding chamber Patent			
[NASA-CASE-XLE-11531]	c15	N71-14932	
Method and apparatus for making curved reflectors Patent			
[NASA-CASE-XLE-08917]	c15	N71-15597	
Method of making a diffusion bonded refractory coating Patent			
[NASA-CASE-XLE-01604-2]	c15	N71-15610	
Black-body furnace Patent			
[NASA-CASE-XLE-01399]	c33	N71-15625	
Method of igniting solid propellants Patent			
[NASA-CASE-XLE-01988]	c27	N71-15634	
Fluid dispensing apparatus and method Patent			
[NASA-CASE-XLE-01182]	c27	N71-15635	
Automatically deploying nozzle exit cone extension Patent			
[NASA-CASE-XLE-01640]	c31	N71-15637	
High temperature cobalt-base alloy Patent			
[NASA-CASE-XLE-00726]	c17	N71-15644	
Method of making a rocket motor casing Patent			
[NASA-CASE-XLE-00409]	c28	N71-15658	
Rocket motor casing Patent			
[NASA-CASE-XLE-05689]	c28	N71-15659	
Electrostatic ion rocket engine Patent			
[NASA-CASE-XLE-02066]	c28	N71-15661	
High temperature cobalt-base alloy Patent			
[NASA-CASE-XLE-02991]	c17	N71-16025	
Nickel-base alloy containing Mo-W-Al-Cr-Ta-Zr-C-Nb-B Patent			
[NASA-CASE-XLE-02082]	c17	N71-16026	
Method of improving the reliability of a rolling element system Patent			
[NASA-CASE-XLE-02999]	c15	N71-16052	
Process of casting heavy slips Patent			
[NASA-CASE-XLE-00106]	c15	N71-16076	
Boiler for generating high quality vapor Patent			
[NASA-CASE-XLE-00785]	c33	N71-16104	
Method of making self lubricating fluoride-metal composite materials Patent			
[NASA-CASE-XLE-08511-2]	c18	N71-16105	
Thrust and direction control apparatus Patent			
[NASA-CASE-XLE-03583]	c31	N71-17629	
Linear magnetic brake with two windings Patent			
[NASA-CASE-XLE-05079]	c15	N71-17652	
Method of lubricating rolling element bearings Patent			
[NASA-CASE-XLE-09527]	c15	N71-17688	
Hot wire liquid level detector for cryogenic fluids Patent			
[NASA-CASE-XLE-00454]	c23	N71-17802	
Pulsed differential comparator circuit Patent			
[NASA-CASE-XLE-03804]	c10	N71-19471	
Foil seal Patent			
[NASA-CASE-XLE-05130-2]	c15	N71-19570	
Generator for a space power system Patent			
[NASA-CASE-XLE-04250]	c09	N71-20446	
Method of making electrical contact on silicon solar cell and resultant product Patent			
[NASA-CASE-XLE-04787]	c03	N71-20492	
Small plasma probe Patent			
[NASA-CASE-XLE-02578]	c25	N71-20747	
Combined electrolysis device and fuel cell and method of operation Patent			
[NASA-CASE-XLE-01645]	c03	N71-20904	
Pressure monitoring with a plurality of ionization gauges controlled at a central location Patent			
[NASA-CASE-XLE-00787]	c14	N71-21090	
Control of transverse instability in rocket combustors Patent			
[NASA-CASE-XLE-04603]	c33	N71-21507	
High voltage divider system Patent			
[NASA-CASE-XLE-02008]	c09	N71-21583	
Plasma device feed system Patent			
[NASA-CASE-XLE-02902]	c25	N71-21694	
Burning rate control of solid propellants Patent			
[NASA-CASE-XLE-03494]	c27	N71-21819	
Protective device for machine and metalworking tools Patent			
[NASA-CASE-XLE-01092]	c15	N71-22797	
Cryogenic insulation system Patent			
[NASA-CASE-XLE-04222]	c23	N71-22881	
Method for producing fiber reinforced metallic composites Patent			
[NASA-CASE-XLE-03925]	c18	N71-22894	
Thermal shock apparatus Patent			
[NASA-CASE-XLE-02024]	c14	N71-22964	
Arc electrode of graphite with ball tip Patent			
[NASA-CASE-XLE-04788]	c09	N71-22987	
Gas purged dry box glove Patent			
[NASA-CASE-XLE-02531]	c05	N71-23080	
Automatic recording McLeod gauge Patent			
[NASA-CASE-XLE-03280]	c14	N71-23093	
Electronic cathode having a brush-like structure and a relatively thick oxide emissive coating Patent			

[NASA-CASE-XLE-04501]	c09 N71-23190	Cyclic switch Patent	
High temperature ferromagnetic cobalt-base alloy Patent		[NASA-CASE-LEW-10155-1]	c09 N71-29035
[NASA-CASE-XLE-03629]	c17 N71-23248	Temperature reducing coating for metals subject to flame exposure Patent	
Induction furnace with perforated tungsten foil shielding Patent		[NASA-CASE-XLE-00035]	c33 N71-29151
[NASA-CASE-XLE-04026]	c14 N71-23267	Liquid spray cooling method Patent	
Gd or Sm doped silicon semiconductor composition Patent		[NASA-CASE-XLE-00027]	c33 N71-29152
[NASA-CASE-XLE-10715]	c26 N71-23292	Turbo-machine blade vibration damper Patent	
Protection of serially connected solar cells against open circuits by the use of shunting diode Patent		[NASA-CASE-XLE-00155]	c28 N71-29154
[NASA-CASE-XLE-04535]	c03 N71-23354	Corrosion resistant beryllium Patent	
Superconducting alternator Patent		[NASA-CASE-LEW-10327]	c17 N71-33408
[NASA-CASE-XLE-02823]	c09 N71-23443	Integrated thermoelectric generator/space antenna combination	
Silicon solar cell with cover glass bonded to cell by metal pattern Patent		[NASA-CASE-XEB-09521]	c09 N72-12136
[NASA-CASE-XLE-08569]	c03 N71-23449	Sensing probe	
Analytical test apparatus and method for determining oxide content of alkali metal Patent		[NASA-CASE-LEW-10281-1]	c14 N72-17327
[NASA-CASE-XLE-01997]	c06 N71-23527	Method of making emf cell	
Thermionic converter with current augmented by self induced magnetic field Patent		[NASA-CASE-LEW-11359-2]	c03 N72-20034
[NASA-CASE-XLE-01903]	c22 N71-23599	Gaseous control system for nuclear reactors	
Semiconductor material and method of making same Patent		[NASA-CASE-XLE-04599]	c22 N72-20597
[NASA-CASE-XLE-02798]	c26 N71-23654	Switching regulator	
Insulation system Patent		[NASA-CASE-LEW-11005-1]	c09 N72-21243
[NASA-CASE-XLE-02647]	c18 N71-23658	Saturation current protection apparatus for saturable core transformers	
Self-lubricating fluoride metal composite materials Patent		[NASA-CASE-ERC-10075-2]	c09 N72-22196
[NASA-CASE-XLE-08511]	c18 N71-23710	Pulse coupling circuit	
Alloys for bearings Patent		[NASA-CASE-LEW-10433-1]	c09 N72-22197
[NASA-CASE-XLE-05033]	c15 N71-23810	Solid state remote circuit selector switch	
Extrusion die for refractory metals Patent		[NASA-CASE-LEW-10387]	c09 N72-22201
[NASA-CASE-XLE-06773]	c15 N71-23817	Load-insensitive electrical device	
Combustion chamber Patent		[NASA-CASE-XEB-11046]	c09 N72-22203
[NASA-CASE-XLE-04857]	c28 N71-23968	High speed rolling element bearing	
Metallic film diffusion for boundary lubrication Patent		[NASA-CASE-LEW-10856-1]	c15 N72-22490
[NASA-CASE-XLE-10337]	c15 N71-24046	Production of metal powders	
Process for producing dispersion strengthened nickel with aluminum Patent		[NASA-CASE-XLE-06461]	c17 N72-22530
[NASA-CASE-XLE-06969]	c17 N71-24142	Nickel base alloy	
Thermal radiation shielding Patent		[NASA-CASE-LEW-10874-1]	c17 N72-22535
[NASA-CASE-XLE-03432]	c33 N71-24145	Ion thruster magnetic field control	
Method of attaching a cover glass to a solar cell Patent		[NASA-CASE-LEW-10835-1]	c28 N72-22771
[NASA-CASE-XLE-08569-2]	c03 N71-24681	Electrically conductive fluorocarbon polymer	
Rocket engine injector Patent		[NASA-CASE-XLE-06774-2]	c06 N72-25150
[NASA-CASE-XLE-03157]	c28 N71-24736	Analogy Signal to Discrete Time Interval Converter (ASDTC)	
Multialarm summary alarm Patent		[NASA-CASE-ERC-10048]	c09 N72-25251
[NASA-CASE-XLE-03061-1]	c10 N71-24798	Controllable load insensitive power converters	
Apparatus for making curved reflectors Patent		[NASA-CASE-ERC-10268]	c09 N72-25252
[NASA-CASE-XLE-08917-2]	c15 N71-24836	Angular velocity and acceleration measuring apparatus	
Flow angle sensor and read out system Patent		[NASA-CASE-ERC-10292]	c14 N72-25410
[NASA-CASE-XLE-04503]	c14 N71-24864	Electrical insulating layer process	
Shock tube powder dispersing apparatus Patent		[NASA-CASE-LEW-10489-1]	c15 N72-25447
[NASA-CASE-XLE-04946]	c17 N71-24911	Method for producing dispersion strengthened alloys by converting metal to a halide, comminuting, reducing the metal halide to the metal and sintering	
Pneumatic oscillator Patent		[NASA-CASE-LEW-10450-1]	c15 N72-25448
[NASA-CASE-LEW-10345-1]	c10 N71-25899	Selective nickel deposition	
Heat activated cell with alkali anode and alkali salt electrolyte Patent		[NASA-CASE-LEW-10965-1]	c15 N72-25452
[NASA-CASE-LEW-11358]	c03 N71-26084	Method of making fiber composites	
Method of producing refractory composites containing tantalum carbide, hafnium carbide, and hafnium boride Patent		[NASA-CASE-LEW-10424-2-2]	c18 N72-25539
[NASA-CASE-XLE-03940]	c18 N71-26153	Electricity measurement devices employing liquid crystalline materials	
Ion beam deflector Patent		[NASA-CASE-ERC-10275]	c26 N72-25680
[NASA-CASE-LEW-10689-1]	c28 N71-26173	Ablative system	
Rolling element bearings Patent		[NASA-CASE-LEW-10359]	c33 N72-25911
[NASA-CASE-XLE-09527-2]	c15 N71-26189	Inductance device with vacuum insulation	
Ion thruster accelerator system Patent		[NASA-CASE-LEW-10330-1]	c09 N72-27226
[NASA-CASE-LEW-10106-1]	c28 N71-26642	Apparatus for sensing temperature	
Propellant feed isolator Patent		[NASA-CASE-XLE-05230]	c14 N72-27410
[NASA-CASE-LEW-10210-1]	c28 N71-26781	Apparatus for producing metal powders	
Heat activated cell Patent		[NASA-CASE-XLE-06461-2]	c17 N72-28535
[NASA-CASE-LEW-11359]	c03 N71-28579	Refractory metal base alloy composites	
Process for glass coating an ion accelerator grid Patent		[NASA-CASE-XLE-03940-2]	c17 N72-28536
[NASA-CASE-LEW-10278-1]	c15 N71-28582	Apparatus for producing high purity I-123	
Fluid jet amplifier Patent		[NASA-CASE-LEW-10518-2]	c24 N72-28714
[NASA-CASE-XLE-09341]	c12 N71-28741	Spiral groove seal	
Gas core nuclear reactor Patent		[NASA-CASE-XLE-10326-2]	c15 N72-29488
[NASA-CASE-LEW-10250-1]	c22 N71-28759	Production of high purity I-123	
Gas turbine combustor Patent		[NASA-CASE-LEW-10518-1]	c24 N72-33681
[NASA-CASE-LEW-10286-1]	c28 N71-28915	Electrostatic collector for charged particles	
		[NASA-CASE-LEW-11192-1]	c09 N73-13208
		Method of making apparatus for sensing temperature	
		[NASA-CASE-XLE-05230-2]	c14 N73-13417
		Method of forming superalloys	
		[NASA-CASE-LEW-10805-1]	c15 N73-13465
		Rocket thrust throttling system	
		[NASA-CASE-LEW-10374-1]	c28 N73-13773
		Gas turbine engine fuel control	
		[NASA-CASE-LEW-11187-1]	c28 N73-19793

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Thermocouple tape			
[NASA-CASE-LEW-11072-1]	c14	N73-24472	
Method and apparatus for sputtering utilizing an			
apertured electrode and a pulsed substrate bias			
[NASA-CASE-LEW-10920-1]	c17	N73-24569	
Magneto-plasma-dynamic arc thruster			
[NASA-CASE-LEW-11180-1]	c25	N73-25760	
Ablative system			
[NASA-CASE-LEW-10359-2]	c33	N73-25952	
Parasitic suppressing circuit			
[NASA-CASE-ERC-10403-1]	c10	N73-26228	
Twisted multifilament superconductor			
[NASA-CASE-LEW-11726-1]	c26	N73-26752	
Ophthalmic method and apparatus			
[NASA-CASE-LEW-11669-1]	c05	N73-27062	
Rocket propellant injection			
[NASA-CASE-LEW-11071-1]	c27	N73-27695	
Single grid accelerator for an ion thruster			
[NASA-CASE-XLE-10453-2]	c28	N73-27699	
Preparation of polyimides from mixtures of			
monomeric diamines and esters of			
polycarboxylic acids			
[NASA-CASE-LEW-11325-1]	c06	N73-27980	
Method and apparatus for measuring			
electromagnetic radiation			
[NASA-CASE-LEW-11159-1]	c14	N73-28488	
Welding blades to rotors			
[NASA-CASE-LEW-10533-1]	c15	N73-28515	
Low mass rolling element for bearings			
[NASA-CASE-LEW-11087-1]	c15	N73-30458	
Swirl can primary combustor			
[NASA-CASE-LEW-11326-1]	c23	N73-30665	
Enhanced diffusion welding			
[NASA-CASE-LEW-11388-1]	c15	N73-32358	
High speed hybrid bearing comprising a fluid			
bearing and a rolling bearing convected in			
series			
[NASA-CASE-LEW-11152-1]	c15	N73-32359	
Nickel aluminide coated low alloy stainless steel			
[NASA-CASE-LEW-11267-1]	c17	N73-32414	
Cobalt-base alloy			
[NASA-CASE-LEW-10436-1]	c17	N73-32415	
Nuclear fuel elements			
[NASA-CASE-XLE-00209]	c22	N73-32528	
Method of fabricating a twisted composite			
superconductor			
[NASA-CASE-LEW-11015]	c26	N73-32571	
Space vehicle with artificial gravity and			
earth-like environment			
[NASA-CASE-LEW-11101-1]	c31	N73-32750	
Production of hollow components for rolling			
element bearings by diffusion welding			
[NASA-CASE-LEW-11026-1]	c15	N73-33383	
Electron beam controller			
[NASA-CASE-LEW-11617-1]	c33	N74-10195	
Spiral groove seal			
[NASA-CASE-LEW-10326-3]	c37	N74-10474	
Method of heat treating a formed powder product			
material			
[NASA-CASE-LEW-10805-3]	c26	N74-10521	
Apparatus for welding blades to rotors			
[NASA-CASE-LEW-10533-2]	c37	N74-11300	
High powered arc electrodes			
[NASA-CASE-LEW-11162-1]	c33	N74-12913	
Method of forming articles of manufacture from			
superalloy powders			
[NASA-CASE-LEW-10805-2]	c37	N74-13179	
Deposition of alloy films			
[NASA-CASE-LEW-11262-1]	c27	N74-13270	
Supersonic-combustion rocket			
[NASA-CASE-LEW-11058-1]	c20	N74-13502	
Method of making silicon solar cell array			
[NASA-CASE-LEW-11069-1]	c44	N74-14784	
Spiral groove seal			
[NASA-CASE-XLE-10326-4]	c37	N74-15125	
Method of making rolling element bearings			
[NASA-CASE-LEW-11087-2]	c37	N74-15128	
Gas turbine exhaust nozzle			
[NASA-CASE-LEW-11569-1]	c07	N74-15453	
Demodulator for carrier transducers			
[NASA-CASE-NUC-10107-1]	c33	N74-17930	
Diffusion welding in air			
[NASA-CASE-LEW-11387-1]	c37	N74-18128	
Airflow control system for supersonic inlets			
[NASA-CASE-LEW-11188-1]	c02	N74-20646	
Rapidly pulsed, high intensity, incoherent light			
source			
[NASA-CASE-XLE-2529-3]	c33	N74-20859	
Electromagnetic flow rate meter			
[NASA-CASE-LEW-10981-1]	c35	N74-21018	
Diffusion welding			
[NASA-CASE-LEW-11388-2]	c37	N74-21055	
Journal bearings			
[NASA-CASE-LEW-11076-1]	c37	N74-21061	
Glass-to-metal seals comprising relatively high			
expansion metals			
[NASA-CASE-LEW-10698-1]	c37	N74-21063	
Hollow rolling element bearings			
[NASA-CASE-LEW-11087-3]	c37	N74-21064	
Low level signal limiter			
[NASA-CASE-XLE-04791]	c32	N74-22096	
Load insensitive electrical device			
[NASA-CASE-XER-11046-2]	c33	N74-22864	
Reinforced structural plastics			
[NASA-CASE-LEW-10199-1]	c27	N74-23125	
Jet exhaust noise suppressor			
[NASA-CASE-LEW-11286-1]	c07	N74-27490	
High current electrical lead			
[NASA-CASE-LEW-10950-1]	c33	N74-27683	
Magnetocaloric pump			
[NASA-CASE-LEW-11672-1]	c37	N74-27904	
Supersonic fan blading			
[NASA-CASE-LEW-11402-1]	c07	N74-28226	
Production of pure metals			
[NASA-CASE-LEW-10906-1]	c25	N74-30502	
Sputtering holes with ion beamlets			
[NASA-CASE-LEW-11646-1]	c20	N74-31269	
Method of electroforming a rocket chamber			
[NASA-CASE-LEW-11118-1]	c20	N74-32919	
Journal Bearings			
[NASA-CASE-LEW-11076-2]	c37	N74-32921	
Hall effect magnetometer			
[NASA-CASE-LEW-11632-2]	c35	N75-13213	
Method of protecting the surface of a substrate			
[NASA-CASE-LEW-11696-1]	c37	N75-13261	
Circuit for detecting initial systole and			
diastolic notch			
[NASA-CASE-LEW-11581-1]	c54	N75-13531	
Method of making dish ion thruster grids			
[NASA-CASE-LEW-11694-1]	c20	N75-18310	
Duplex aluminized coatings			
[NASA-CASE-LEW-11696-2]	c26	N75-19408	
High speed, self-acting shaft seal			
[NASA-CASE-LEW-11274-1]	c37	N75-21631	
High power laser apparatus and system			
[NASA-CASE-XLE-2529-2]	c36	N75-27364	
Combination automatic-starting electrical plasma			
torch and gas shutoff valve			
[NASA-CASE-XLE-10717]	c37	N75-29426	
Flow measuring apparatus			
[NASA-CASE-LEW-12078-1]	c35	N75-30503	
Lubricated journal bearing			
[NASA-CASE-LEW-11076-3]	c37	N75-30562	
Protected isotope heat source			
[NASA-CASE-LEW-11227-1]	c73	N75-30876	
Drilled ball bearing with a one piece			
anti-tipping cage assembly			
[NASA-CASE-LEW-11925-1]	c37	N75-31446	
Method of making an insulation foil			
[NASA-CASE-LEW-11484-1]	c24	N75-33181	
Ophthalmic liquifaction pump			
[NASA-CASE-LEW-12051-1]	c52	N75-33640	
Controlled separation combustor			
[NASA-CASE-LEW-11593-1]	c20	N76-14190	
Rocket chamber and method of making			
[NASA-CASE-LEW-11118-2]	c20	N76-14191	
Shock position sensor for supersonic inlets			
[NASA-CASE-LEW-11915-1]	c35	N76-14431	
Apparatus for forming dish ion thruster grids			
[NASA-CASE-LEW-11694-2]	c37	N76-14461	
Covered silicon solar cells and method of			
manufacture			
[NASA-CASE-LEW-11065-2]	c44	N76-14600	
High temperature beryllium oxide capacitor			
[NASA-CASE-LEW-11938-1]	c33	N76-15373	
Thermocouple tape			
[NASA-CASE-LEW-11072-2]	c35	N76-15434	
Fluid journal bearings			
[NASA-CASE-LEW-11076-4]	c37	N76-15461	
Deuterium pass through target			
[NASA-CASE-LEW-11866-1]	c72	N76-15860	
Fused silicide coatings containing discrete			
particles for protecting niobium alloys			
[NASA-CASE-LEW-11179-1]	c27	N76-16229	
Process for making anhydrous metal halides			
[NASA-CASE-LEW-11860-1]	c37	N76-18458	

Flexible formulated plastic separators for alkaline batteries [NASA-CASE-LEW-12363-1]	c44 N76-19552	Magnetic heat pumping [NASA-CASE-LEW-12508-2]	c34 N77-32435
Circumferential shaft seal [NASA-CASE-LEW-12119-1]	c37 N76-20488	Thermocouples of tantalum and rhenium alloys for more stable vacuum-high temperature performance [NASA-CASE-LEW-12050-1]	c35 N77-32454
Method of constructing dished ion thruster grids to provide hole array spacing compensation [NASA-CASE-LEW-11876-1]	c20 N76-21276	Spatial filter for Q-switched lasers [NASA-CASE-LEW-12164-1]	c36 N77-32478
Bearing material [NASA-CASE-LEW-11930-1]	c24 N76-22309	Deformable bearing seat [NASA-CASE-LEW-12527-1]	c37 N77-32500
Fluid seal for rotating shafts [NASA-CASE-LEW-11676-1]	c37 N76-22541	Bearing seat usable in a gas turbine engine [NASA-CASE-LEW-12477-1]	c37 N77-32501
Method of making an apertured casting [NASA-CASE-LEW-11169-1]	c37 N76-23570	Fuel combustor [NASA-CASE-LEW-12137-1]	c25 N78-10224
Process for fabricating SiC semiconductor devices [NASA-CASE-LEW-12094-1]	c76 N76-25049	Oil cooling system for a gas turbine engine [NASA-CASE-LEW-12321-1]	c37 N78-10467
Method of producing I-123 [NASA-CASE-LEW-11390-2]	c25 N76-27383	Impact absorbing blade mounts for variable pitch blades [NASA-CASE-LEW-12313-1]	c37 N78-10468
Production of I-123 [NASA-CASE-LEW-11390-3]	c25 N76-29379	Method of forming metal hydride films [NASA-CASE-LEW-12083-1]	c37 N78-13436
Thrust bearing [NASA-CASE-LEW-11949-1]	c37 N76-29588	In-situ laser retorting of oil shale [NASA-CASE-LEW-12217-1]	c43 N78-14452
Ion beam thruster shield [NASA-CASE-LEW-12082-1]	c20 N77-10148	Multi-cell battery protection system [NASA-CASE-LEW-12039-1]	c44 N78-14625
Dual output variable pitch turbofan actuation system [NASA-CASE-LEW-12419-1]	c07 N77-14025	Tissue macerating instrument [NASA-CASE-LEW-12668-1]	c52 N78-14773
Silicon nitride coated, plastic covered solar cell [NASA-CASE-LEW-11496-1]	c44 N77-14580	Trimerization of aromatic nitriles [NASA-CASE-LEW-12053-1]	c27 N78-15276
Electrically rechargeable REDOX flow cell [NASA-CASE-LEW-12220-1]	c44 N77-14581	Variable thrust nozzle for quiet turbofan engine and method of operating same [NASA-CASE-LEW-12317-1]	c07 N78-17055
Reverse pitch fan with divided splitter [NASA-CASE-LEW-12760-1]	c07 N77-17059	Gas turbine engine with convertible accessories [NASA-CASE-LEW-12390-1]	c07 N78-17056
Electronic analog divider [NASA-CASE-LEW-11881-1]	c33 N77-17354	Closed loop spray cooling apparatus [NASA-CASE-LEW-11981-1]	c31 N78-17237
Leading edge protection for composite blades [NASA-CASE-LEW-12550-1]	c24 N77-19170	Particle parameter analyzing system [NASA-CASE-LEW-06094]	c33 N78-17293
Method of making reinforced composite structure [NASA-CASE-LEW-12619-1]	c24 N77-19171	Magnetic heat pumping [NASA-CASE-LEW-12508-1]	c34 N78-17335
Solar cell assembly [NASA-CASE-LEW-11549-1]	c44 N77-19571	Variable cycle gas turbine engines [NASA-CASE-LEW-12916-1]	c37 N78-17384
Anode for ion thruster [NASA-CASE-LEW-12048-1]	c20 N77-20162	Integrated gas turbine engine-nacelle [NASA-CASE-LEW-12389-2]	c07 N78-18066
Zirconium modified nickel-copper alloy [NASA-CASE-LEW-12245-1]	c26 N77-20201	Variable mixer propulsion cycle [NASA-CASE-LEW-12917-1]	c07 N78-18067
Gels as battery separators for soluble electrode cells [NASA-CASE-LEW-12364-1]	c44 N77-22606	Tantalum modified ferritic iron base alloys [NASA-CASE-LEW-12095-1]	c26 N78-18182
Oil cooling system for a gas turbine engine [NASA-CASE-LEW-12830-1]	c07 N77-23106	Directionally solidified eutectic gamma-gamma nickel-base superalloys [NASA-CASE-LEW-12905-1]	c26 N78-18183
High toughness-high strength iron alloy [NASA-CASE-LEW-12542-1]	c26 N77-24254	Thermal barrier coating system [NASA-CASE-LEW-12554-1]	c34 N78-18355
Process for preparing liquid metal electrical contact device [NASA-CASE-LEW-11978-1]	c33 N77-26385	Selective coating for solar panels [NASA-CASE-LEW-12159-1]	c44 N78-19599
Blade retainer assembly [NASA-CASE-LEW-12608-1]	c07 N77-27116	Atomic hydrogen storage method and apparatus [NASA-CASE-LEW-12081-2]	c72 N78-19907
Hybrid composite laminate structures [NASA-CASE-LEW-12118-1]	c24 N77-27188	In situ self cross-linking of polyvinyl alcohol battery separators [NASA-CASE-LEW-12972-1]	c23 N78-22157
Bi-metallic junctions [NASA-CASE-LEW-11573-1]	c26 N77-28265	Method for alleviating thermal stress damage in laminates [NASA-CASE-LEW-12493-1]	c24 N78-22163
Sustained arc ignition system [NASA-CASE-LEW-12444-1]	c33 N77-28385	Atomic hydrogen storage method and apparatus [NASA-CASE-LEW-12081-1]	c28 N78-24365
Hydrostatic bearing support [NASA-CASE-LEW-11158-1]	c37 N77-28486	Automotive gas turbine fuel control [NASA-CASE-LEW-12785-1]	c37 N78-24545
Corneal seal device [NASA-CASE-LEW-12258-1]	c52 N77-28716	Gas turbine engine with recirculating bleed [NASA-CASE-LEW-12452-1]	c07 N78-25089
Intra-ocular pressure normalization apparatus [NASA-CASE-LEW-12955-1]	c52 N77-30736	Counter pumping debris excluder and separator [NASA-CASE-LEW-11855-1]	c07 N78-25090
Intra-ocular pressure normalization technique and equipment [NASA-CASE-LEW-12723-1]	c52 N77-30737	Apparatus for extraction and separation of a preferentially photo-dissociated molecular isotope into positive and negative ions by means of an electric field [NASA-CASE-LEW-12465-1]	c25 N78-25148
Solar cell shingle [NASA-CASE-LEW-12587-1]	c44 N77-31601	Formulated plastic separators for soluble electrode cells [NASA-CASE-LEW-12358-2]	c25 N78-25149
Platform for a swing root turbomachinery blade [NASA-CASE-LEW-12312-1]	c07 N77-32148	Liquid metal slip ring [NASA-CASE-LEW-12277-2]	c33 N78-25323
Catalytic trimerization of aromatic nitriles and triaryl-s-triazine ring cross-linked high temperature resistant polymers and copolymers made thereby [NASA-CASE-LEW-12053-2]	c23 N77-32244	Flow compensating pressure regulator [NASA-CASE-LEW-12718-1]	c34 N78-25351
Bearing material [NASA-CASE-LEW-11930-3]	c24 N77-32249	Solar cell collector [NASA-CASE-LEW-12552-1]	c44 N78-25527
Directionally solidified eutectic gamma plus beta nickel-base superalloys [NASA-CASE-LEW-12906-1]	c26 N77-32279	Method of making encapsulated solar cell modules [NASA-CASE-LEW-12185-1]	c44 N78-25528
Nickel base alloy [NASA-CASE-LEW-12270-1]	c26 N77-32280	Method for producing solar energy panels by automation [NASA-CASE-LEW-12541-1]	c44 N78-25529

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Inorganic-organic separators for alkaline batteries
 [NASA-CASE-LEW-12649-1] c44 N78-25530

Solar cell system having alternating current output
 [NASA-CASE-LEW-12806-1] c44 N78-25553

Electrochemical cell for rebalancing redox flow system
 [NASA-CASE-LEW-13150-1] c44 N78-25554

Cesium thermionic converters having improved electrodes
 [NASA-CASE-LEW-12038-3] c44 N78-25555

Supercritical fuel injection system
 [NASA-CASE-LEW-12990-1] c07 N78-27122

Targets for producing high purity I-123
 [NASA-CASE-LEW-10518-3] c25 N78-27226

Direct heating surface combustor
 [NASA-CASE-LEW-11877-1] c34 N78-27357

Self-reconfiguring solar cell system
 [NASA-CASE-LEW-12586-1] c44 N78-27520

Method of cold welding using ion beam technology
 [NASA-CASE-LEW-12982-1] c37 N78-28459

Gas path seal
 [NASA-CASE-LEW-12131-2] c07 N78-31103

Regulated high efficiency, lightweight capacitor-diode multiplier dc to dc converter
 [NASA-CASE-LEW-12791-1] c33 N78-32341

Redundant disc
 [NASA-CASE-LEW-12496-1] c07 N78-33101

Apparatus and method for reducing thermal stress in a turbine rotor
 [NASA-CASE-LEW-12232-1] c07 N79-10057

Traveling wave tube circuit
 [NASA-CASE-LEW-12013-1] c33 N79-10339

Cantilever mounted resilient pad gas bearing
 [NASA-CASE-LEW-12569-1] c37 N79-10418

Free-piston regenerative hot gas hydraulic engine
 [NASA-CASE-LEW-12274-1] c37 N79-10426

Hydrogen hollow cathode ion source
 [NASA-CASE-LEW-12940-1] c75 N79-10894

Modification of the electrical and optical properties of polymers
 [NASA-CASE-LEW-13027-1] c27 N79-11216

Fuel delivery system including heat exchanger means
 [NASA-CASE-LEW-12793-1] c37 N79-11403

Solar cells having integral collector grids
 [NASA-CASE-LEW-12819-1] c44 N79-11467

Application of semiconductor diffusants to solar cells by screen printing
 [NASA-CASE-LEW-12775-1] c44 N79-11468

Solar cell collector and method for producing same
 [NASA-CASE-LEW-12552-2] c44 N79-11472

Self-stabilizing radial face seal
 [NASA-CASE-LEW-12991-1] c37 N79-12445

Heat exchanger
 [NASA-CASE-LEW-12252-1] c34 N79-13288

Heat exchanger and method of making
 [NASA-CASE-LEW-12441-1] c34 N79-13289

Cam-operated pitch-change apparatus
 [NASA-CASE-LEW-13050-1] c07 N79-14095

Integrated gas turbine engine-nacelle
 [NASA-CASE-LEW-12389-3] c07 N79-14096

Variable area exhaust nozzle
 [NASA-CASE-LEW-12378-1] c07 N79-14097

Method of cross-linking polyvinyl alcohol and other water soluble resins
 [NASA-CASE-LEW-13103-1] c25 N79-14172

Cross-linked polyvinyl alcohol and method of making same
 [NASA-CASE-LEW-13101-1] c25 N79-14173

In-situ cross-linking of polyvinyl alcohol
 [NASA-CASE-LEW-13135-1] c25 N79-14174

Indicated mean-effective pressure instrument
 [NASA-CASE-LEW-12661-1] c35 N79-14345

Thermocouples of molybdenum and iridium alloys for more stable vacuum-high temperature performance
 [NASA-CASE-LEW-12174-2] c35 N79-14346

Back wall solar cell
 [NASA-CASE-LEW-12236-2] c44 N79-14528

Catalyst surfaces for the chromous/chromic redox couple
 [NASA-CASE-LEW-13148-1] c44 N79-14538

Sound-suppressing structure with thermal relief
 [NASA-CASE-LEW-12658-1] c71 N79-14871

Fine particulate capture device
 [NASA-CASE-LEW-11583-1] c35 N79-17192

Formulated plastic separators for soluble electrode cells
 [NASA-CASE-LEW-12358-1] c44 N79-17313

Method of making bearing materials
 [NASA-CASE-LEW-11930-4] c24 N79-17916

Composite seal for turbomachinery
 [NASA-CASE-LEW-12131-1] c37 N79-18318

Method for fabricating solar cells having integrated collector grids
 [NASA-CASE-LEW-12819-2] c44 N79-18444

Atomic hydrogen storage method and apparatus
 [NASA-CASE-LEW-12081-3] c44 N79-18455

High toughness-high strength iron alloy
 [NASA-CASE-LEW-12542-3] c26 N79-19145

Closed loop solar array-ion thruster system with power control circuitry
 [NASA-CASE-LEW-12780-1] c20 N79-20179

Closed loop spray cooling apparatus
 [NASA-CASE-LEW-11981-2] c34 N79-20336

Hypervelocity gun
 [NASA-CASE-XLE-03186-1] c09 N79-21084

Low heat leak connector for cryogenic system
 [NASA-CASE-XLE-02367-1] c31 N79-21225

A heat exchanger and method of making
 [NASA-CASE-LEW-12441-2] c34 N79-21313

Method for the preparation of inorganic single crystal and polycrystalline electronic materials
 [NASA-CASE-XLE-02545-1] c76 N79-21910

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
MANNED SPACECRAFT CENTER, CAPE CANAVERAL, FLA.

Electrode for biological recording
 [NASA-CASE-XMS-02872] c05 N69-21925

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
MANNED SPACECRAFT CENTER, WASHINGTON, D.C.

Plural recorder system
 [NASA-CASE-XMS-06949] c09 N69-21467

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
MARSHALL SPACE FLIGHT CENTER, HUNTSVILLE, ALA.

Electrical feed-through connection for printed circuit boards and printed cable
 [NASA-CASE-XMF-01483] c14 N69-27431

Method for detecting hydrogen gas
 [NASA-CASE-XMF-03873] c06 N69-39733

Electrical connector Patent Application
 [NASA-CASE-XMF-14741] c09 N70-20737

Angular measurement system Patent
 [NASA-CASE-XMF-00447] c14 N70-33179

Insulating structure Patent
 [NASA-CASE-XMF-00341] c15 N70-33323

Space vehicle electrical system Patent
 [NASA-CASE-XMF-00517] c03 N70-34157

Pivotal shock absorbing pad assembly Patent
 [NASA-CASE-XMF-03856] c31 N70-34159

Gimbaled, partially submerged rocket nozzle Patent
 [NASA-CASE-XMF-01544] c28 N70-34162

Recoverable rocket vehicle Patent
 [NASA-CASE-XMF-00389] c31 N70-34176

Electrical discharge apparatus for forming Patent
 [NASA-CASE-XMF-00375] c15 N70-34249

Optical inspection apparatus Patent
 [NASA-CASE-XMF-00462] c14 N70-34298

Relay binary circuit Patent
 [NASA-CASE-XMF-00421] c09 N70-34502

Attitude and propellant flow control system and method Patent
 [NASA-CASE-XMF-00185] c21 N70-34539

Electrical connector for flat cables Patent
 [NASA-CASE-XMF-00324] c09 N70-34596

Externally pressurized fluid bearing Patent
 [NASA-CASE-XMF-00515] c15 N70-34664

Force measuring instrument Patent
 [NASA-CASE-XMF-00456] c14 N70-34705

Seismic displacement transducer Patent
 [NASA-CASE-XMF-00479] c14 N70-34794

Electric arc welding Patent
 [NASA-CASE-XMF-00392] c15 N70-34814

Assembly for recovering a capsule Patent
 [NASA-CASE-XMF-00641] c31 N70-36410

Printed cable connector Patent
 [NASA-CASE-XMF-00369] c09 N70-36494

Landing pad assembly for aerospace vehicles Patent
 [NASA-CASE-XMF-02853] c31 N70-36654

Electric arc driven wind tunnel Patent
 [NASA-CASE-XMF-00411] c11 N70-36913

Gravity device Patent
 [NASA-CASE-XMF-00424] c11 N70-38196

Injector for bipropellant rocket engines Patent
 [NASA-CASE-XMF-00148] c28 N70-38710

Electronic motor control system Patent		
[NASA-CASE-XMF-01129]	c09	N70-38712
Slosh suppressing device and method Patent		
[NASA-CASE-XMF-00658]	c12	N70-38997
Air bearing Patent		
[NASA-CASE-XMF-00339]	c15	N70-39896
Instrument support with precise lateral adjustment Patent		
[NASA-CASE-XMF-00480]	c14	N70-39898
Segmented back-up bar Patent		
[NASA-CASE-XMF-00640]	c15	N70-39924
Collapsible loop antenna for space vehicle Patent		
[NASA-CASE-XMF-00437]	c07	N70-40202
Flexible back-up bar Patent		
[NASA-CASE-XMF-00722]	c15	N70-40204
Electro-optical alignment control system Patent		
[NASA-CASE-XMF-00908]	c14	N70-40238
Missile launch release system Patent		
[NASA-CASE-XMF-03198]	c30	N70-40353
Double-acting shock absorber Patent		
[NASA-CASE-XMF-01045]	c15	N70-40354
Portable alignment tool Patent		
[NASA-CASE-XMF-01452]	c15	N70-41371
Device for suppressing sound and heat produced by high-velocity exhaust jets Patent		
[NASA-CASE-XMF-01813]	c28	N70-41582
Unfired-ceramic flame-resistant insulation and method of making the same Patent		
[NASA-CASE-XMF-01030]	c18	N70-41583
Pulse counting circuit which simultaneously indicates the occurrence of the nth pulse Patent		
[NASA-CASE-XMF-00906]	c09	N70-41655
Support apparatus for dynamic testing Patent		
[NASA-CASE-XMF-01772]	c11	N70-41677
Locking device with rolling detents Patent		
[NASA-CASE-XMF-01371]	c15	N70-41829
Tank construction for space vehicles Patent		
[NASA-CASE-XMF-01899]	c31	N70-41948
Positive displacement flowmeter Patent		
[NASA-CASE-XMF-02822]	c14	N70-41994
Hydraulic support for dynamic testing Patent		
[NASA-CASE-XMF-03248]	c11	N71-10604
Fiber optic vibration transducer and analyzer Patent		
[NASA-CASE-XMF-02433]	c14	N71-10616
Method and means for damping nutation in a satellite Patent		
[NASA-CASE-XMF-00442]	c31	N71-10747
Heat pipe thermionic diode power system Patent		
[NASA-CASE-XMF-05843]	c03	N71-11055
Synthesis of siloxane-containing epoxy polymers Patent		
[NASA-CASE-MPS-13994-1]	c06	N71-11240
Bi-carrier demodulator with modulation Patent		
[NASA-CASE-XMF-01160]	c07	N71-11298
Harness assembly Patent		
[NASA-CASE-MPS-14671]	c05	N71-12341
Magnetic matrix memory system Patent		
[NASA-CASE-XMF-05835]	c08	N71-12504
Pulse amplitude and width detector Patent		
[NASA-CASE-XMF-06519]	c09	N71-12519
Microwave power receiving antenna Patent		
[NASA-CASE-MPS-20333]	c09	N71-13486
Hybrid holographic system using reflected and transmitted object beams simultaneously Patent		
[NASA-CASE-MPS-20074]	c16	N71-15565
Reactance control system Patent		
[NASA-CASE-XMF-01598]	c21	N71-15583
Apparatus for welding torch angle and seam tracking control Patent		
[NASA-CASE-XMF-03287]	c15	N71-15607
Multivortex valve system Patent		
[NASA-CASE-XMF-04709]	c15	N71-15609
Injector assembly for liquid fueled rocket engines Patent		
[NASA-CASE-XMF-00968]	c28	N71-15660
Space capsule ejection assembly Patent		
[NASA-CASE-XMF-03169]	c31	N71-15675
Air cushion lift pad Patent		
[NASA-CASE-MPS-14695]	c31	N71-15689
Method of making a molded connector Patent		
[NASA-CASE-XMF-03498]	c15	N71-15986
Regenerative braking system Patent		
[NASA-CASE-XMF-01096]	c10	N71-16030
Condition and condition duration indicator Patent		
[NASA-CASE-XMF-01097]	c10	N71-16058
Method and apparatus for securing to a spacecraft Patent		
[NASA-CASE-MPS-11133]	c31	N71-16222
Method and apparatus of simulating zero gravity conditions Patent		
[NASA-CASE-MPS-12750]	c27	N71-16223
Passive optical wind and turbulence detection system Patent		
[NASA-CASE-XMF-14032]	c20	N71-16340
Serpentuator Patent		
[NASA-CASE-XMF-05344]	c31	N71-16345
Gravimeter Patent		
[NASA-CASE-XMF-05844]	c14	N71-17587
High pressure gas filter system Patent		
[NASA-CASE-MPS-12806]	c14	N71-17588
Burst diaphragm flow initiator Patent		
[NASA-CASE-MPS-12915]	c11	N71-17600
Vacuum deposition apparatus Patent		
[NASA-CASE-XMF-01667]	c15	N71-17647
Quick disconnect latch and handle combination Patent		
[NASA-CASE-MPS-11132]	c15	N71-17649
Method and apparatus for precision sizing and joining of large diameter tubes Patent		
[NASA-CASE-XMF-05114]	c15	N71-17650
Low temperature flexure fatigue cryostat Patent		
[NASA-CASE-XMF-02964]	c14	N71-17659
Precision stepping drive Patent		
[NASA-CASE-MPS-14772]	c15	N71-17692
Multi-mission module Patent		
[NASA-CASE-XMF-01543]	c31	N71-17730
Ratchet mechanism Patent		
[NASA-CASE-MPS-12805]	c15	N71-17805
Method of making impurity-type semiconductor electrical contacts Patent		
[NASA-CASE-XMF-01016]	c26	N71-17818
Apparatus for the determination of the existence or non-existence of a bonding between two members Patent		
[NASA-CASE-MPS-13686]	c15	N71-18132
Static inverters which sum a plurality of waves Patent		
[NASA-CASE-XMF-00663]	c08	N71-18752
Space environmental work simulator Patent		
[NASA-CASE-XMF-07488]	c11	N71-18773
Space manufacturing machine Patent		
[NASA-CASE-MPS-20410]	c15	N71-19214
Extensometer Patent		
[NASA-CASE-XMF-04680]	c15	N71-19489
Mechanical simulator of low gravity conditions Patent		
[NASA-CASE-MPS-10555]	c11	N71-19494
Weld control system using thermocouple wire Patent		
[NASA-CASE-MPS-06074]	c15	N71-20393
Evaporant source for vapor deposition Patent		
[NASA-CASE-XMF-06065]	c15	N71-20395
Satellite despine device Patent		
[NASA-CASE-XMF-08523]	c31	N71-20396
Method of coating circuit paths on printed circuit boards with solder Patent		
[NASA-CASE-XMF-01599]	c09	N71-20705
Elastomeric silazane polymers and process for preparing the same Patent		
[NASA-CASE-XMF-04133]	c06	N71-20717
Method of producing alternating ether siloxane copolymers Patent		
[NASA-CASE-XMF-02584]	c06	N71-20905
Honeycomb panel and method of making same Patent		
[NASA-CASE-XMF-01402]	c18	N71-21651
Portable milling tool Patent		
[NASA-CASE-XMF-03511]	c15	N71-22799
Energy absorbing device Patent		
[NASA-CASE-XMF-10040]	c15	N71-22877
Continuous detonation reaction engine Patent		
[NASA-CASE-XMF-06926]	c28	N71-22983
Adaptive tracking notch filter system Patent		
[NASA-CASE-XMF-01892]	c10	N71-22986
Meteorological balloon Patent		
[NASA-CASE-XMF-04163]	c02	N71-23007
Continuous turning slip ring assembly Patent		
[NASA-CASE-XMF-01049]	c15	N71-23049
Automatic welding speed controller Patent		
[NASA-CASE-XMF-01730]	c15	N71-23050
Positive dc to positive dc converter Patent		
[NASA-CASE-XMF-14301]	c09	N71-23188
Zero gravity apparatus Patent		
[NASA-CASE-XMF-06515]	c14	N71-23227
Positive dc to negative dc converter Patent		
[NASA-CASE-XMF-08217]	c03	N71-23239
Evacuation port seal Patent		
[NASA-CASE-XMF-03290]	c15	N71-23256

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Azimuth laying system Patent		
[NASA-CASE-XMP-01669]	c21	N71-23289
Electron beam instrument for measuring electric fields Patent		
[NASA-CASE-XMP-10289]	c14	N71-23699
Anemometer with braking mechanism Patent		
[NASA-CASE-XMP-05224]	c14	N71-23726
Apparatus for testing a pressure responsive instrument Patent		
[NASA-CASE-XMP-04134]	c14	N71-23755
Electric welding torch Patent		
[NASA-CASE-XMP-02330]	c15	N71-23798
Swivel support for gas bearings Patent		
[NASA-CASE-XMP-07808]	c15	N71-23812
Welding skate with computerized control Patent		
[NASA-CASE-XMP-07069]	c15	N71-23815
Docking structure for spacecraft Patent		
[NASA-CASE-XMP-05941]	c31	N71-23912
High pressure helium purifier Patent		
[NASA-CASE-XMP-06888]	c15	N71-24044
Horizontal cryostat for fatigue testing Patent		
[NASA-CASE-XMP-10968]	c14	N71-24234
Method for leakage testing of tanks Patent		
[NASA-CASE-XMP-02392]	c32	N71-24285
Internal flare angle gauge Patent		
[NASA-CASE-XMP-04415]	c14	N71-24693
Pulse rise time and amplitude detector Patent		
[NASA-CASE-XMP-08804]	c09	N71-24717
System for maintaining a motor at a predetermined speed utilizing digital feedback means Patent		
[NASA-CASE-XMP-06892]	c09	N71-24805
Power system with heat pipe liquid coolant lines Patent		
[NASA-CASE-MPS-14114-2]	c09	N71-24807
Magnetomotive metal working device Patent		
[NASA-CASE-XMP-03793]	c15	N71-24833
Apparatus for determining the deflection of an electron beam impinging on a target Patent		
[NASA-CASE-XMP-06617]	c09	N71-24843
Transistor servo system including a unique differential amplifier circuit Patent		
[NASA-CASE-XMP-05195]	c10	N71-24861
RC rate generator for slow speed measurement Patent		
[NASA-CASE-XMP-02966]	c10	N71-24863
Method and apparatus for precision sizing and joining of large diameter tubes Patent		
[NASA-CASE-XMP-05114-3]	c15	N71-24865
Duct coupling for single-handed operation Patent		
[NASA-CASE-MPS-20395]	c15	N71-24903
Brushless direct current tachometer Patent		
[NASA-CASE-MPS-20385]	c09	N71-24904
Self-lubricating gears and other mechanical parts Patent		
[NASA-CASE-MPS-14971]	c15	N71-24984
Pulse width inverter Patent		
[NASA-CASE-MPS-10068]	c10	N71-25139
Isothermal cover with thermal reservoirs Patent		
[NASA-CASE-MPS-20355]	c33	N71-25353
Storage container for electronic devices Patent		
[NASA-CASE-MPS-20075]	c09	N71-26133
Method and apparatus for precision sizing and joining of large diameter tubes Patent		
[NASA-CASE-XMP-05114-2]	c15	N71-26148
Filter system for control of outgas contamination in vacuum Patent		
[NASA-CASE-MPS-14711]	c15	N71-26185
Image magnification adapter for cameras Patent		
[NASA-CASE-XMP-03844-1]	c14	N71-26474
Thickness measuring and injection device Patent		
[NASA-CASE-MPS-20261]	c14	N71-27005
Personal propulsion unit Patent		
[NASA-CASE-MPS-20130]	c28	N71-27585
Power system with heat pipe liquid coolant lines Patent		
[NASA-CASE-MPS-14114]	c33	N71-27862
Method of making shielded flat cable Patent		
[NASA-CASE-MPS-13687]	c09	N71-28691
A dc motor speed control system Patent		
[NASA-CASE-MPS-14610]	c09	N71-28886
Cryogenic thermal insulation Patent		
[NASA-CASE-XMP-05046]	c33	N71-28892
Method of coating through-holes Patent		
[NASA-CASE-XMP-05999]	c15	N71-29032
Response analyzers for sensors Patent		
[NASA-CASE-MPS-11204]	c14	N71-29134
Current regulating voltage divider		
[NASA-CASE-MPS-20935]	c09	N71-34212
Nuclear mass flowmeter		
[NASA-CASE-MPS-20485]	c14	N72-11365
Fine adjustment mount		
[NASA-CASE-MPS-20249]	c15	N72-11386
Method of making foamed materials in zero gravity		
[NASA-CASE-XMP-09902]	c15	N72-11387
Air bearing assembly for curved surfaces		
[NASA-CASE-MPS-20423]	c15	N72-11388
Stud-bonding gun		
[NASA-CASE-MPS-20299]	c15	N72-11392
Holographic stress analyzer for solder joints		
[NASA-CASE-MPS-20687]	c16	N72-11415
Apparatus for obtaining isotropic irradiation of a specimen		
[NASA-CASE-MPS-20095]	c24	N72-11595
Wind tunnel test section		
[NASA-CASE-MPS-20509]	c11	N72-17183
Multiple image storing system for high speed projectile holography		
[NASA-CASE-MPS-20596]	c14	N72-17324
Method of manufacturing semiconductor devices using refractory dielectrics		
[NASA-CASE-XER-08476-1]	c26	N72-17820
Underwater space suit pressure control regulator		
[NASA-CASE-MPS-20332]	c05	N72-20097
Apparatus for making diamonds		
[NASA-CASE-MPS-20698]	c15	N72-20446
An airlock		
[NASA-CASE-MPS-20922]	c31	N72-20840
Photoetching of metal-oxide layers		
[NASA-CASE-ERC-10108]	c06	N72-21094
Liquid aerosol dispenser		
[NASA-CASE-MPS-20829]	c12	N72-21310
Optical probing of supersonic flows with statistical correlation		
[NASA-CASE-MPS-20642]	c14	N72-21407
Mechanically actuated triggered hand		
[NASA-CASE-MPS-20413]	c15	N72-21463
Hermetically sealed elbow actuator		
[NASA-CASE-MPS-14710]	c09	N72-22195
Shielded flat cable		
[NASA-CASE-MPS-13687-2]	c09	N72-22198
Shock wave convergence apparatus		
[NASA-CASE-MPS-20890]	c14	N72-22439
Bonding of reinforced Teflon to metals		
[NASA-CASE-MPS-20482]	c15	N72-22492
Inorganic thermal control coatings		
[NASA-CASE-MPS-20011]	c18	N72-22566
High temperature furnace for melting materials in space		
[NASA-CASE-MPS-20710]	c11	N72-23215
Siloxane containing epoxide compounds		
[NASA-CASE-MPS-13994-2]	c06	N72-25148
Silphenylenesiloxane polymers having in-chain perfluoroalkyl groups		
[NASA-CASE-MPS-20979]	c06	N72-25151
Emergency lunar communications system		
[NASA-CASE-MPS-21042]	c07	N72-25171
Lead attachment to high temperature devices		
[NASA-CASE-ERC-10224]	c09	N72-25261
Device for measuring bearing preload		
[NASA-CASE-MPS-20434]	c11	N72-25288
Altitude simulation chamber for rocket engine testing		
[NASA-CASE-MPS-20620]	c11	N72-27262
Fixture for supporting articles during vibration tests		
[NASA-CASE-MPS-20523]	c14	N72-27412
Electrical connector		
[NASA-CASE-MPS-20757]	c09	N72-28225
Remote control manipulator for zero gravity environment		
[NASA-CASE-MPS-14405]	c15	N72-28495
Thermal compensating structural member		
[NASA-CASE-MPS-20433]	c15	N72-28496
Semiconductor transducer device		
[NASA-CASE-ERC-10087-2]	c14	N72-31446
Coaxial high density, hypervelocity plasma generator and accelerator with ionizable metal disc		
[NASA-CASE-MPS-20589]	c25	N72-32688
Process for the preparation of brushite crystals		
[NASA-CASE-ERC-10338]	c04	N72-33072
Adjustable force probe		
[NASA-CASE-MPS-20760]	c14	N72-33377
Polyimide resin-fiberglass cloth laminates for printed circuit boards		
[NASA-CASE-MPS-20408]	c18	N73-12604

Differential pressure control
[NASA-CASE-MPS-14216] c14 N73-13418

Redundant hydraulic control system for actuators
[NASA-CASE-MPS-20944] c15 N73-13466

Device and method for determining X ray reflection efficiency of optical surfaces
[NASA-CASE-MPS-20243] c23 N73-13662

Process for making diamonds
[NASA-CASE-MPS-20698-2] c15 N73-19457

Test stand system for vacuum chambers
[NASA-CASE-MPS-21362] c11 N73-20267

Material fatigue testing system
[NASA-CASE-MPS-20673] c14 N73-20476

Ratometer
[NASA-CASE-MPS-20418] c14 N73-20473

Underwater space suit pressure control regulator
[NASA-CASE-MPS-20332-2] c05 N73-25125

Maxometers (peak wind speed anemometers)
[NASA-CASE-MPS-20916] c14 N73-25460

Monitoring deposition of films
[NASA-CASE-MPS-20675] c26 N73-26751

Docking structure for spacecraft
[NASA-CASE-MPS-20863] c31 N73-26876

Wide temperature range electronic device with lead attachment
[NASA-CASE-ERC-10224-2] c09 N73-27150

Restraint system for ergometer
[NASA-CASE-MPS-21046-1] c14 N73-27377

Apparatus and method for skin packaging articles
[NASA-CASE-MPS-20855] c15 N73-27405

Ergometer
[NASA-CASE-MPS-21109-1] c05 N73-27941

Tilting table for ergometer and for other biomedical devices
[NASA-CASE-MPS-21010-1] c05 N73-30078

Measurement system
[NASA-CASE-MPS-20658-1] c14 N73-30386

Collimator of multiple plates with axially aligned identical random arrays of apertures
[NASA-CASE-MPS-20546-2] c14 N73-30389

Holographic thin film analyzer
[NASA-CASE-MPS-20823-1] c16 N73-30476

Semiconductor surface protection material
[NASA-CASE-ERC-10339-1] c18 N73-30532

Polymerizable disiloxanes having in-chain perfluoroalkyl groups
[NASA-CASE-MPS-20979-2] c06 N73-32030

Redundant speed control for brushless Hall effect motor
[NASA-CASE-MPS-20207-1] c09 N73-32107

Induction motor control system with voltage controlled oscillator circuit
[NASA-CASE-MPS-21465-1] c10 N73-32145

Synthesis of superconducting compounds by explosive compaction of powders
[NASA-CASE-MPS-20861-1] c18 N73-32437

Ultrasonic scanner for radial and flat panels
[NASA-CASE-MPS-20335-1] c35 N74-10415

Digital computing cardiometer
[NASA-CASE-MPS-20284-1] c52 N74-12778

Integrated circuit package with lead structure and method of preparing the same
[NASA-CASE-MPS-21374-1] c33 N74-12951

Vee-notching device
[NASA-CASE-MPS-20730-1] c39 N74-13131

Ultrasonic scanning system for in-place inspection of brazed tube joints
[NASA-CASE-MPS-20767-1] c38 N74-15130

Method and apparatus for checking the stability of a setup for making reflection type holograms
[NASA-CASE-MPS-21455-1] c35 N74-15146

Method and apparatus for nondestructive testing
[NASA-CASE-MPS-21233-1] c38 N74-15395

Real time moving scene holographic camera system
[NASA-CASE-MPS-21087-1] c35 N74-17153

Nonflammable coating compositions
[NASA-CASE-MPS-20486-2] c27 N74-17283

Metering gun for dispensing precisely measured charges of fluid
[NASA-CASE-MPS-21163-1] c54 N74-17853

Omnidirectional wheel
[NASA-CASE-MPS-21309-1] c37 N74-18125

Reinforced polyquinoxaline gasket and method of preparing the same
[NASA-CASE-MPS-21364-1] c37 N74-18126

Manual actuator
[NASA-CASE-MPS-21481-1] c37 N74-18127

Cryogenic gyroscope housing
[NASA-CASE-MPS-21136-1] c35 N74-18323

Automatic frequency control for FM transmitter
[NASA-CASE-MPS-21540-1] c32 N74-19790

Microwave power transmission system wherein level of transmitted power is controlled by reflections from receiver
[NASA-CASE-MPS-21470-1] c44 N74-19870

Reduced gravity fecal collector seat and urinal
[NASA-CASE-MPS-22102-1] c54 N74-20725

Metabolic analyzer
[NASA-CASE-MPS-21415-1] c52 N74-20728

Automatic quadrature control and measuring system
[NASA-CASE-MPS-21660-1] c35 N74-21017

Thiophenyl ether disiloxanes and trisiloxanes useful as lubricant fluids
[NASA-CASE-MPS-22411-1] c37 N74-21058

Airlock
[NASA-CASE-MPS-20922-1] c18 N74-22136

Low distortion automatic phase control circuit
[NASA-CASE-MPS-21671-1] c33 N74-22885

Two speed drive system
[NASA-CASE-MPS-20645-1] c37 N74-23070

Insert facing tool
[NASA-CASE-MPS-21485-1] c37 N74-25968

LC-oscillator with automatic stabilized amplitude via bias current control
[NASA-CASE-MPS-21698-1] c33 N74-26732

Device for monitoring a change in mass in varying gravimetric environments
[NASA-CASE-MPS-21556-1] c35 N74-26945

Holography utilizing surface plasmon resonances
[NASA-CASE-MPS-22040-1] c35 N74-26946

Electrophoretic sample insertion
[NASA-CASE-MPS-21395-1] c25 N74-26948

Sprag solenoid brake
[NASA-CASE-MPS-21846-1] c37 N74-26976

Device for configuring multiple leads
[NASA-CASE-MPS-22133-1] c33 N74-26977

Thrust-isolating mounting
[NASA-CASE-MPS-21680-1] c18 N74-27397

Battery testing device
[NASA-CASE-MPS-20761-1] c44 N74-27519

Apparatus for establishing flow of a fluid mass having a known velocity
[NASA-CASE-MPS-21424-1] c34 N74-27730

Apparatus for conducting flow electrophoresis in the substantial absence of gravity
[NASA-CASE-MPS-21394-1] c34 N74-27744

Steady state thermal radiometers
[NASA-CASE-MPS-21108-1] c34 N74-27861

Conductive elastomeric extensometer
[NASA-CASE-MPS-21049-1] c52 N74-27864

Device for measuring tensile forces
[NASA-CASE-MPS-21728-1] c35 N74-27865

Three mirror glancing incidence system for X-ray telescope
[NASA-CASE-MPS-21372-1] c74 N74-27866

Flame detector operable in presence of proton radiation
[NASA-CASE-MPS-21577-1] c19 N74-29410

Integrated P-channel MOS gyrator
[NASA-CASE-MPS-22343-1] c33 N74-34638

System for depositing thin films
[NASA-CASE-MPS-20775-1] c31 N75-12161

Ultrasonic bone densitometer
[NASA-CASE-MPS-20994-1] c35 N75-12271

Strain gauge ambiguity sensor for segmented mirror active optical system
[NASA-CASE-MPS-20506-1] c35 N75-12273

Orthotic arm joint
[NASA-CASE-MPS-21611-1] c54 N75-12616

Automatically operable self-leveling load table
[NASA-CASE-MPS-22039-1] c09 N75-12968

Phase-locked servo system
[NASA-CASE-MPS-22073-1] c33 N75-13139

Self-energized plasma compressor
[NASA-CASE-MPS-22145-1] c75 N75-13625

Clear air turbulence detector
[NASA-CASE-MPS-21244-1] c36 N75-15028

Variable frequency inverter for ac induction motors with torque, speed and braking control
[NASA-CASE-MPS-22088-1] c33 N75-15874

Leak detector
[NASA-CASE-MPS-21761-1] c35 N75-15931

Ergometer calibrator
[NASA-CASE-MPS-21045-1] c35 N75-15932

Space vehicle
[NASA-CASE-MPS-22734-1] c18 N75-19329

Meter for use in detecting tension in straps having predetermined elastic characteristics

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

[NASA-CASE-MFS-22189-1]	c35 N75-19615	Mixing insert for foam dispensing apparatus	[NASA-CASE-MFS-20607-1]	c37 N76-19436
Multiplate focusing collimator		Traffic survey system	[NASA-CASE-MFS-22631-1]	c66 N76-19888
[NASA-CASE-MFS-20932-1]	c35 N75-19616	Electronic optical transfer function analyzer	[NASA-CASE-MFS-21672-1]	c74 N76-19935
Latching device		System for imposing directional stability on a rocket-propelled vehicle	[NASA-CASE-MFS-21311-1]	c20 N76-21275
[NASA-CASE-MFS-21606-1]	c37 N75-19685	Filtering device	[NASA-CASE-MFS-22729-1]	c32 N76-21366
Internally supported flexible duct joint		Translatory shock absorber for attitude sensors	[NASA-CASE-MFS-22905-1]	c19 N76-22284
[NASA-CASE-MFS-19193-1]	c37 N75-19686	Device for installing rocket engines	[NASA-CASE-MFS-19220-1]	c20 N76-22296
Pseudo-noise test set for communication system evaluation		Deployable flexible tunnel	[NASA-CASE-MFS-22636-1]	c37 N76-22540
[NASA-CASE-MFS-22671-1]	c35 N75-21582	Solar energy absorber	[NASA-CASE-MFS-22743-1]	c44 N76-22657
Device for use in loading tension members		Apparatus for reducing aerodynamic noise in a wind tunnel	[NASA-CASE-MFS-23099-1]	c09 N76-23273
[NASA-CASE-MFS-21488-1]	c14 N75-24794	Charge injection method and apparatus of producing large area electrets	[NASA-CASE-MFS-23186-1]	c33 N76-23483
Holographic system for nondestructive testing		Solar energy power system	[NASA-CASE-MFS-21628-2]	c44 N76-23675
[NASA-CASE-MFS-21704-1]	c35 N75-25124	Solar energy trap	[NASA-CASE-MFS-22744-1]	c44 N76-24696
Hole cutter		Failure detection and control means for improved drift performance of a gimballed platform system	[NASA-CASE-MFS-23551-1]	c04 N76-26175
[NASA-CASE-MFS-22649-1]	c37 N75-25186	Lead-oxygen dc power supply system having a closed loop oxygen and water system	[NASA-CASE-MFS-23059-1]	c44 N76-27664
Apparatus for calibrating an image dissector tube		Dual mode solid state power switch	[NASA-CASE-MFS-22880-1]	c33 N76-31410
[NASA-CASE-MFS-22208-1]	c33 N75-26244	Thermal energy storage system	[NASA-CASE-MFS-23167-1]	c44 N76-31667
Method of determining bond quality of power transistors attached to substrates		Aircraft-mounted crash-activated transmitter device	[NASA-CASE-MFS-16609-3]	c03 N76-32140
[NASA-CASE-MFS-21931-1]	c37 N75-26372	Multiple in-line docking capability for rotating space stations	[NASA-CASE-MFS-20855-1]	c15 N77-10142
Anti-gravity device		Attitude control system	[NASA-CASE-MFS-22787-1]	c15 N77-10143
[NASA-CASE-MFS-22758-1]	c70 N75-26789	Heat exchanger	[NASA-CASE-MFS-22991-1]	c34 N77-10463
Brazing alloy binder		Focused laser Doppler velocimeter	[NASA-CASE-MFS-23178-1]	c35 N77-10493
[NASA-CASE-MFS-05868]	c26 N75-27125	Photovoltaic cell array	[NASA-CASE-MFS-22458-1]	c44 N77-10635
Brazing alloy composition		Wind measurement system	[NASA-CASE-MFS-23362-1]	c47 N77-10753
[NASA-CASE-MFS-06053]	c26 N75-27126	General purpose rocket furnace	[NASA-CASE-MFS-23460-1]	c09 N77-12070
Refractory porcelain enamel passive control coating for high temperature alloys		Mechanical thermal motor	[NASA-CASE-MFS-23062-1]	c37 N77-12402
[NASA-CASE-MFS-22324-1]	c27 N75-27160	Solid-state current transformer	[NASA-CASE-MFS-22560-1]	c33 N77-14335
Real time, large volume, moving scene holographic camera system		Actuator device for artificial leg	[NASA-CASE-MFS-23225-1]	c52 N77-14735
[NASA-CASE-MFS-22537-1]	c35 N75-27328	Frequency modulated oscillator	[NASA-CASE-MFS-23181-1]	c33 N77-17351
Method and apparatus for vibration analysis utilizing the Mossbauer effect		Method of and means for testing a tape record/playback system	[NASA-CASE-MFS-22671-2]	c35 N77-17426
[NASA-CASE-MFS-05882]	c35 N75-27329	Notch filter	[NASA-CASE-MFS-23303-1]	c32 N77-18307
Method of preparing graphite reinforced aluminum composite		Guide for a typewriter	[NASA-CASE-MFS-15218-1]	c37 N77-19457
[NASA-CASE-MFS-21077-1]	c24 N75-28135	Mount for continuously orienting a collector dish in a system adapted to perform both diurnal and seasonal solar tracking	[NASA-CASE-MFS-23267-1]	c35 N77-20401
Carbon monoxide monitor		Emergency descent device	[NASA-CASE-MFS-23074-1]	c54 N77-21844
[NASA-CASE-MFS-22060-1]	c35 N75-29380	Device for tensioning test specimens within an hermetically sealed chamber	[NASA-CASE-MFS-23281-1]	c35 N77-22450
Perfluoro alkylene dioxy-bis-(4-phthalic anhydrides and oxy-bis-(perfluoroalkyleneoxyphthalic anhydrides		Combined docking and grasping device	[NASA-CASE-MFS-23088-1]	c37 N77-23483
[NASA-CASE-MFS-22356-1]	c23 N75-30256	Method of growing composites of the type exhibiting the Soret effect	[NASA-CASE-MFS-22926-1]	c24 N77-27187
Integrable power gyator		Method for measuring biaxial stress in a body subjected to stress inducing loads	[NASA-CASE-MFS-23299-1]	c39 N77-28511
[NASA-CASE-MFS-22342-1]	c33 N75-30428			
Isolated output system for a class D switching-mode amplifier				
[NASA-CASE-MFS-21616-1]	c33 N75-30429			
Solar energy power system				
[NASA-CASE-MFS-21628-1]	c44 N75-32581			
System for enhancing tool-exchange capabilities of a portable wrench				
[NASA-CASE-MFS-22283-1]	c37 N75-33395			
Externally supported internally stabilized flexible duct joint				
[NASA-CASE-MFS-19194-1]	c37 N76-14460			
Quick disconnect filter coupling				
[NASA-CASE-MFS-22233-1]	c37 N76-14463			
Panel for selectively absorbing solar thermal energy and the method of producing said panel				
[NASA-CASE-MFS-22562-1]	c44 N76-14595			
Rapid activation and checkout device for batteries				
[NASA-CASE-MFS-22749-1]	c44 N76-14601			
Two stage light gas-plasma projectile accelerator				
[NASA-CASE-MFS-22287-1]	c75 N76-14931			
Polyimides of ether-linked aryl tetracarboxylic dianhydrides				
[NASA-CASE-MFS-22355-1]	c23 N76-15268			
Remotely operable articulated manipulator				
[NASA-CASE-MFS-22707-1]	c37 N76-15457			
Remote manipulator system				
[NASA-CASE-MFS-22022-1]	c37 N76-15460			
Thermoelectric power system				
[NASA-CASE-MFS-22002-1]	c44 N76-16612			
Self-energized plasma compressor				
[NASA-CASE-MFS-22145-2]	c75 N76-17951			
Device for measuring the ferrite content in an austenitic stainless-steel weld				
[NASA-CASE-MFS-22907-1]	c26 N76-18257			
Heat transfer device				
[NASA-CASE-MFS-22938-1]	c34 N76-18374			
Holographic motion picture camera with Doppler shift compensation				
[NASA-CASE-MFS-22517-1]	c35 N76-18402			
Method of peening and portable peening gun				
[NASA-CASE-MFS-23047-1]	c37 N76-18454			

Method for attaching a fused-quartz mirror to a conductive metal substrate
[NASA-CASE-NFS-23405-1] c26 N77-29260

Method of preparing zinc orthotitanate pigment
[NASA-CASE-NFS-23345-1] c27 N77-30237

Accumulator
[NASA-CASE-NFS-19287-1] c34 N77-30399

Tachometer
[NASA-CASE-NFS-23175-1] c35 N77-30436

Horizontally mounted solar collector
[NASA-CASE-NFS-23349-1] c44 N77-30613

Dual mode solid state power switch
[NASA-CASE-NFS-22880-2] c33 N77-31407

Real time reflectometer
[NASA-CASE-NFS-23118-1] c35 N77-31465

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-NFS-23518-2] c44 N77-31611

Method of crystallization
[NASA-CASE-NFS-23001-1] c76 N77-32919

Power factor control system for AC induction motors
[NASA-CASE-NFS-23280-1] c33 N78-10376

Germanium coated microbridge and method
[NASA-CASE-NFS-23274-1] c33 N78-13320

An improved solar concentrator
[NASA-CASE-NFS-23727-1] c44 N78-13556

Laser extensometer
[NASA-CASE-NFS-19259-1] c36 N78-14380

Method of and means for testing a glancing-incidence mirror system of an X-ray telescope
[NASA-CASE-NFS-22409-2] c74 N78-15880

Projection system for display of parallax and perspective
[NASA-CASE-NFS-23194-1] c35 N78-17357

Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-NFS-22597] c36 N78-17366

Method of construction of a multi-cell solar array
[NASA-CASE-NFS-23540-1] c44 N78-17468

Wrist joint assembly
[NASA-CASE-NFS-23311-1] c54 N78-17676

Semiconductor projectile impact detector
[NASA-CASE-NFS-23008-1] c35 N78-18390

End effector device
[NASA-CASE-NFS-23692-1] c54 N78-19773

Wind wheel electric power generator
[NASA-CASE-NFS-23515-1] c44 N78-22469

Sprayable low density ablator and application process
[NASA-CASE-NFS-23506-1] c24 N78-24290

Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
[NASA-CASE-NFS-23315-1] c76 N78-24950

Tetherline system for orbiting satellites
[NASA-CASE-NFS-23564-1] c15 N78-25119

Charge injection method and apparatus of producing large area electrets
[NASA-CASE-NFS-23186-2] c24 N78-25137

Secure communication system
[NASA-CASE-NFS-16462-1] c32 N78-25274

Method and apparatus for conditioning of nickel-cadmium batteries
[NASA-CASE-NFS-23270-1] c44 N78-25531

Stainless steel panel for selective absorption of solar energy and the method of producing said panel
[NASA-CASE-NFS-23518-3] c44 N78-25557

Passive propellant system
[NASA-CASE-NFS-23642-2] c20 N78-27176

Method of manufacture of bonded fiber flywheel
[NASA-CASE-NFS-23674-1] c24 N78-27182

Field effect transistor and method of construction thereof
[NASA-CASE-NFS-23312-1] c33 N78-27326

Plasma cleaning device
[NASA-CASE-NFS-22906-1] c75 N78-27913

Redundant motor drive system
[NASA-CASE-NFS-23777-1] c37 N78-28460

Cork-resin ablative insulation for complex surfaces and method for applying the same
[NASA-CASE-NFS-23626-1] c24 N78-32190

Process for spinning flame retardant elastomeric compositions
[NASA-CASE-NFS-14331-3] c27 N78-32262

Microwave integrated circuit for Josephson voltage standards
[NASA-CASE-NFS-23845-1] c33 N78-32347

Velocity measurement system
[NASA-CASE-NFS-23363-1] c35 N78-32396

Hybrid holographic non-destructive test system
[NASA-CASE-NFS-23114-1] c38 N78-32447

Pneumatic inflatable end effector
[NASA-CASE-NFS-23696-1] c54 N78-32724

FM/CW radar system
[NASA-CASE-NFS-22234-1] c32 N79-10264

Method of obtaining intensified image from developed photographic films and plates
[NASA-CASE-NFS-23461-1] c35 N79-10389

Computerized system for translating a torch head
[NASA-CASE-NFS-23620-1] c37 N79-10421

Rotatable mass for a flywheel
[NASA-CASE-NFS-23051-1] c37 N79-10422

Oceanic wave measurement system
[NASA-CASE-NFS-23862-1] c48 N79-10689

Water system virus detection
[NASA-CASE-NFS-16098-1] c51 N79-10693

Anastigmatic three-mirror telescope
[NASA-CASE-NFS-23675-1] c89 N79-10969

Apparatus for assembling space structure
[NASA-CASE-NFS-23579-1] c18 N79-11108

Spherical bearing
[NASA-CASE-NFS-23447-1] c37 N79-11404

Method for making an aluminum or copper substrate panel for selective absorption of solar energy
[NASA-CASE-NFS-23518-1] c44 N79-11469

System for the measurement of ultra-low stray light levels
[NASA-CASE-NFS-23513-1] c74 N79-11865

A system for concurrently delivering a stream of powdered fuel and a stream of powdered oxidizer to a combustion chamber for a reaction motor
[NASA-CASE-NFS-23904-1] c20 N79-13077

Simulator method and apparatus for practicing the mating of an observer-controlled object with a target
[NASA-CASE-NFS-23052-2] c74 N79-13855

Process for preparation of large-particle size monodisperse latexes
[NASA-CASE-NFS-25000-1] c25 N79-14171

Prosthetic urinary sphincter
[NASA-CASE-NFS-23717-1] c52 N79-14756

Multilevel metallization method for fabricating a metal oxide semiconductor device
[NASA-CASE-NFS-23541-1] c76 N79-14906

Preparation of monotectic alloys having a controlled microstructure by directional solidification under dopant-induced interface breakdown
[NASA-CASE-NFS-23816-1] c26 N79-16943

Direct current transformer
[NASA-CASE-NFS-23659-1] c33 N79-17133

Method of making a rocket nozzle
[NASA-CASE-NFS-06884-1] c20 N79-21123

Fluid thrust control system
[NASA-CASE-NFS-05964-1] c20 N79-21124

Rocket injector head
[NASA-CASE-NFS-04592-1] c20 N79-21125

Infusible silazane polymer and process for producing same
[NASA-CASE-NFS-02526-1] c27 N79-21190

Fluorine-containing polyformals
[NASA-CASE-NFS-06900-1] c27 N79-21191

Method and apparatus for preparing multiconductor cable with flat conductors
[NASA-CASE-NFS-10946-1] c31 N79-21226

Edge coating of flat wires
[NASA-CASE-NFS-05757-1] c31 N79-21227

Stable superconducting magnet
[NASA-CASE-NFS-05373-1] c33 N79-21264

Gas ion laser construction for electrically isolating the pressure gauge thereof
[NASA-CASE-NFS-22517-1] c36 N79-21333

A method for separating biological cells
[NASA-CASE-NFS-23883-1] c51 N79-21743

Emergency space-suit helmet
[NASA-CASE-NFS-04673-1] c54 N79-21766

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION.
PASADENA OFFICE, CALIF.

Phase control circuits using frequency multiplications for phased array antennas
[NASA-CASE-NFS-10285] c10 N73-16206

Method of forming difunctional polyisobutylene
[NASA-CASE-NFS-10893] c27 N73-22710

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Radiation and particle detector and amplifier
[NASA-CASE-NPO-12128-1] c14 N73-32317

Expandable space frames
[NASA-CASE-ERC-10365-1] c31 N73-32749

Use of thin film light detector
[NASA-CASE-NPO-11432-2] c35 N74-15090

Temperature compensated digital inertial sensor
[NASA-CASE-NPO-13044-1] c35 N74-15094

Compact hydrogenator
[NASA-CASE-NPO-11682-1] c35 N74-15127

Short range laser obstacle detector
[NASA-CASE-NPO-11856-1] c36 N74-15145

System for stabilizing cable phase delay
utilizing a coaxial cable under pressure
[NASA-CASE-NPO-13138-1] c33 N74-17927

Banded transformer cores
[NASA-CASE-NPO-11966-1] c33 N74-17928

Inverter ratio failure detector
[NASA-CASE-NPO-13160-1] c35 N74-18090

Heat transfer device
[NASA-CASE-NPO-11120-1] c34 N74-18552

Storage battery comprising negative plates of a
wedge shaped configuration
[NASA-CASE-NPO-11806-1] c44 N74-19693

Gated compressor, distortionless signal limiter
[NASA-CASE-NPO-11820-1] c32 N74-19788

Apparatus for scanning the surface of a
cylindrical body
[NASA-CASE-NPO-11861-1] c36 N74-20009

Decision feedback loop for tracking a polyphase
modulated carrier
[NASA-CASE-NPO-13103-1] c32 N74-20811

Optically actuated two position mechanical mover
[NASA-CASE-NPO-13105-1] c37 N74-21060

Pilot control valve
[NASA-CASE-NPO-11951-1] c37 N74-21065

Thin film gauge
[NASA-CASE-NPO-10617-1] c35 N74-22095

High isolation RF signal selection switches
[NASA-CASE-NPO-13081-1] c33 N74-22814

Single reflector interference spectrometer and
drive system therefor
[NASA-CASE-NPO-11932-1] c35 N74-23040

Scanning nozzle plating system
[NASA-CASE-NPO-11758-1] c31 N74-23065

Rock sampling
[NASA-CASE-XNP-10007-1] c46 N74-23068

Rock sampling
[NASA-CASE-XNP-09755] c46 N74-23069

Miniature multichannel biotelemetry system
[NASA-CASE-NPO-13065-1] c52 N74-26625

Dispensing targets for ion beam particle
generators
[NASA-CASE-NPO-13112-1] c73 N74-26767

Optically detonated explosive device
[NASA-CASE-NPO-11743-1] c28 N74-27425

Coherent receiver employing nonlinear coherence
detection for carrier tracking
[NASA-CASE-NPO-11921-1] c32 N74-30523

Digital servo control of random sound test
excitation
[NASA-CASE-NPO-11623-1] c71 N74-31148

Capacitance multiplier and filter synthesizing
network
[NASA-CASE-NPO-11948-1] c33 N74-32712

Apparatus for forming drive belts
[NASA-CASE-NPO-13205-1] c31 N74-32917

Tool for use in lifting pin supported objects
[NASA-CASE-NPO-13157-1] c37 N74-32918

Preparing oxidizer coated metal fuel particles
[NASA-CASE-NPO-11975-1] c28 N74-33209

Geneva mechanism
[NASA-CASE-NPO-13281-1] c37 N75-13266

Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844

Method of producing a storage bulb for an atomic
hydrogen maser
[NASA-CASE-NPO-13050-1] c36 N75-15029

Combined pressure regulator and shutoff valve
[NASA-CASE-NPO-13201-1] c37 N75-15050

Reduction of blood serum cholesterol
[NASA-CASE-NPO-12119-1] c52 N75-15270

Simultaneous acquisition of tracking data from
two stations
[NASA-CASE-NPO-13292-1] c32 N75-15854

Shock absorbing mount for electrical components
[NASA-CASE-NPO-13253-1] c37 N75-18573

System for generating timing and control signals
[NASA-CASE-NPO-13125-1] c33 N75-19519

Motor run-up system
[NASA-CASE-NPO-13374-1] c33 N75-19524

Frequency scanning particle size spectrometer
[NASA-CASE-NPO-13606-1] c35 N75-19627

Particle size spectrometer and refractometer
[NASA-CASE-NPO-13614-1] c35 N75-19628

Deep trap, laser activated image converting system
[NASA-CASE-NPO-13131-1] c36 N75-19652

Multitarget sequential sputtering apparatus
[NASA-CASE-NPO-13345-1] c37 N75-19684

Wide angle sun sensor
[NASA-CASE-NPO-13327-1] c35 N75-23910

Material suspension within an acoustically
excited resonant chamber
[NASA-CASE-NPO-13263-1] c12 N75-24774

Heat operated cryogenic electrical generator
[NASA-CASE-NPO-13303-1] c20 N75-24837

System for interference signal nulling by
polarization adjustment
[NASA-CASE-NPO-13140-1] c32 N75-24982

Heat detection and compositions and devices
therefor
[NASA-CASE-NPO-10764-2] c35 N75-25122

Servo-controlled intravital microscope system
[NASA-CASE-NPO-13214-1] c35 N75-25123

Ultrasonically bonded valve assembly
[NASA-CASE-NPO-13360-1] c37 N75-25185

Vehicle locating system utilizing AM
broadcasting station carriers
[NASA-CASE-NPO-13217-1] c32 N75-26194

Asynchronous, multiplexing, single line
transmission and recovery data system
[NASA-CASE-NPO-13321-1] c32 N75-26195

Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127

Very high intensity light source using a cathode
ray tube
[NASA-CASE-XNP-01296] c33 N75-27250

Fluorescence detector for monitoring atmospheric
pollutants
[NASA-CASE-NPO-13231-1] c45 N75-27585

Cooperative multiaxis sensor for teleoperation
of article manipulating apparatus
[NASA-CASE-NPO-13386-1] c54 N75-27758

Heat sterilizable patient ventilator
[NASA-CASE-NPO-13313-1] c54 N75-27764

Method of heat treating age-hardenable alloys
[NASA-CASE-XNP-01311] c26 N75-29236

Satellite aided vehicle avoidance system
[NASA-CASE-ERC-10419-1] c03 N75-30132

Refrigerated coaxial coupling
[NASA-CASE-NPO-13504-1] c33 N75-30430

Electric power generation system directory from
laser power
[NASA-CASE-NPO-13308-1] c36 N75-30524

Subminiature insertable force transducer
[NASA-CASE-NPO-13423-1] c33 N75-31329

Symmetrical odd-modulus frequency divider
[NASA-CASE-NPO-13426-1] c33 N75-31330

Stored charge transistor
[NASA-CASE-NPO-11156-2] c33 N75-31331

Doped Josephson tunneling junction for use in a
sensitive IR detector
[NASA-CASE-NPO-13348-1] c33 N75-31332

Acoustically controlled distributed feedback laser
[NASA-CASE-NPO-13175-1] c36 N75-31427

Inert gas metallic vapor laser
[NASA-CASE-NPO-13449-1] c36 N75-32441

Prevention of hydrogen embrittlement of high
strength steel by hydrazine compositions
[NASA-CASE-NPO-12122-1] c24 N76-14203

Helium refrigerator
[NASA-CASE-NPO-13435-1] c31 N76-14284

Nonlinear nonsingular feedback shift registers
[NASA-CASE-NPO-13451-1] c33 N76-14373

Strain gage mounting assembly
[NASA-CASE-NPO-13170-1] c35 N76-14430

Forward-scatter polarimeter for determining the
gaseous depolarization factor in the presence
of polluting polydispersed particles
[NASA-CASE-NPO-13756-1] c35 N76-14434

Thermostatically controlled non-tracking type
solar energy concentrator
[NASA-CASE-NPO-13497-1] c44 N76-14602

Multi-computer multiple data path hardware
exchange system
[NASA-CASE-NPO-13422-1] c60 N76-14818

Cermet composition and method of fabrication
[NASA-CASE-NPO-13120-1] c27 N76-15311

Dichroic plate
 [NASA-CASE-NPO-13506-1] c35 N76-15435
 Utilization of oxygen difluoride for syntheses
 of fluoropolymers
 [NASA-CASE-NPO-12061-1] c27 N76-16228
 Magnetometer using superconducting rotating body
 [NASA-CASE-NPO-13388-1] c35 N76-16390
 Scan converting video tape recorder
 [NASA-CASE-NPO-10166-2] c35 N76-16391
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-1] c37 N76-16446
 Automated system for identifying traces of
 organic chemical compounds in aqueous solutions
 [NASA-CASE-NPO-13063-1] c25 N76-18245
 Analog to digital converter
 [NASA-CASE-NPO-13385-1] c33 N76-18345
 Sampler of gas borne particles
 [NASA-CASE-NPO-13396-1] c35 N76-18401
 Stark-effect modulation of CO₂ laser with NH₂D
 [NASA-CASE-NPO-11945-1] c36 N76-1842
 Diffused waveguiding capillary tube with
 distributed feedback for a gas laser
 [NASA-CASE-NPO-13544-1] c36 N76-18428
 System for minimizing internal combustion engine
 pollution emission
 [NASA-CASE-NPO-13402-1] c37 N76-18457
 Hydrogen-bromine secondary battery
 [NASA-CASE-NPO-13237-1] c44 N76-18641
 Hydrogen-rich gas generator
 [NASA-CASE-NPO-13464-1] c44 N76-18642
 Zinc-halide battery with molten electrolyte
 [NASA-CASE-NPO-11961-1] c44 N76-18643
 Priority interrupt system
 [NASA-CASE-NPO-13067-1] c60 N76-18800
 Miniature muscle displacement transducer
 [NASA-CASE-NPO-13519-1] c33 N76-19338
 Zero torque gear head wrench
 [NASA-CASE-NPO-13059-1] c37 N76-20480
 Method and apparatus for measurement of trap
 density and energy distribution in dielectric
 films
 [NASA-CASE-NPO-13443-1] c76 N76-20994
 Highly efficient antenna system using a
 corrugated horn and scanning hyperbolic
 reflector
 [NASA-CASE-NPO-13568-1] c32 N76-21365
 Indicator providing continuous indication of the
 presence of a specific pollutant in air
 [NASA-CASE-NPO-13474-1] c45 N76-21742
 Shared memory for a fault-tolerant computer
 [NASA-CASE-NPO-13139-1] c60 N76-21914
 Wind sensor
 [NASA-CASE-NPO-13462-1] c35 N76-24524
 Fiber distributed feedback laser
 [NASA-CASE-NPO-13531-1] c36 N76-24553
 Method of forming a wick for a heat pipe
 [NASA-CASE-NPO-13391-1] c34 N76-27515
 Method and apparatus for nondestructive testing
 of pressure vessels
 [NASA-CASE-NPO-12142-1] c38 N76-28563
 Method and apparatus for generating coherent
 radiation in the ultra-violet region and above
 by use of distributed feedback
 [NASA-CASE-NPO-13346-1] c36 N76-29575
 Stirling cycle engine and refrigeration systems
 [NASA-CASE-NPO-13613-1] c37 N76-29590
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13342-2] c44 N76-29700
 Solar-powered pump
 [NASA-CASE-NPO-13567-1] c44 N76-29701
 Hydrogen rich gas generator
 [NASA-CASE-NPO-13464-2] c44 N76-29704
 Myocardium wall thickness transducer and
 measuring method
 [NASA-CASE-NPO-13644-1] c52 N76-29895
 Catheter tip force transducer for cardiovascular
 research
 [NASA-CASE-NPO-13643-1] c52 N76-29896
 Real time analysis of voiced sounds
 [NASA-CASE-NPO-13465-1] c32 N76-31372
 III-V photocathode with nitrogen doping for
 increased quantum efficiency
 [NASA-CASE-NPO-12138-1] c33 N76-31409
 High resolution Fourier
 interferometer-spectrophotopolarimeter
 [NASA-CASE-NPO-13604-1] c35 N76-31490
 Reflected-wave maser
 [NASA-CASE-NPO-13490-1] c36 N76-31512
 Method of making hollow elastomeric bodies
 [NASA-CASE-NPO-13535-1] c37 N76-31524
 Solar cell grid patterns
 [NASA-CASE-NPO-13087-2] c44 N76-31666
 Portable antenna
 [NASA-CASE-NPO-13553-1] c33 N76-32457
 Annular arc accelerator shock tube
 [NASA-CASE-NPO-13528-1] c09 N77-10071
 Cryostat system for temperatures on the order of
 2 deg K or less
 [NASA-CASE-NPO-13459-1] c31 N77-10229
 The dc-to-dc converters employing
 staggered-phase power switches with two-loop
 control
 [NASA-CASE-NPO-13512-1] c33 N77-10428
 Ion and electron detector for use in an ICR
 spectrometer
 [NASA-CASE-NPO-13479-1] c35 N77-10492
 Hydrogen-rich gas generator
 [NASA-CASE-NPO-13560-1] c44 N77-10636
 Space communication system for compressed data
 with a concatenated Reed-Solomon-Viterbi
 coding channel
 [NASA-CASE-NPO-13545-1] c32 N77-12240
 Computer interface system
 [NASA-CASE-NPO-13428-1] c60 N77-12721
 High temperature oxidation resistant cermet
 compositions
 [NASA-CASE-NPO-13666-1] c27 N77-13217
 Frequency discriminator and phase detector circuit
 [NASA-CASE-NPO-11515-1] c33 N77-13315
 Mass spectrometer with magnetic pole pieces
 providing the magnetic fields for both the
 magnetic sector and an ion-type vacuum pump
 [NASA-CASE-NPO-13663-1] c35 N77-14406
 Thermocouple installation
 [NASA-CASE-NPO-13540-1] c35 N77-14409
 Method and apparatus for background signal
 reduction in opto-acoustic absorption
 measurement
 [NASA-CASE-NPO-13683-1] c35 N77-14411
 Improved nozzle for use with abrasive and/or
 corrosive materials
 [NASA-CASE-NPO-13823-1] c37 N77-17466
 Nuclear thermionic converter
 [NASA-CASE-NPO-13121-1] c73 N77-18891
 Passive intrusion detection system
 [NASA-CASE-NPO-13804-1] c35 N77-19390
 Continuous plasma laser
 [NASA-CASE-NPO-04167-3] c36 N77-19416
 Multiple rate digital command detection system
 with range clean-up capability
 [NASA-CASE-NPO-13753-1] c32 N77-20289
 Solar energy collection system
 [NASA-CASE-NPO-13579-2] c44 N77-20565
 Low cost solar energy collection system
 [NASA-CASE-NPO-13579-3] c44 N77-20566
 Charge storage diode modulators and demodulators
 [NASA-CASE-NPO-10189-1] c33 N77-21314
 Compact, high intensity arc lamp with internal
 magnetic field producing means
 [NASA-CASE-NPO-11510-1] c33 N77-21315
 Depressurization of arc lamps
 [NASA-CASE-NPO-10790-1] c33 N77-21316
 Electromagnetic transducer recording head having
 a laminated core section and tapered gap
 [NASA-CASE-NPO-10711-1] c35 N77-21392
 Cryogenic liquid sensor
 [NASA-CASE-NPO-10619-1] c35 N77-21393
 Uniform variable light source
 [NASA-CASE-NPO-11429-1] c74 N77-21941
 Arc control in compact arc lamps
 [NASA-CASE-NPO-10870-1] c33 N77-22386
 Adjustable chamfering tool
 [NASA-CASE-NPO-10857-1] c37 N77-22478
 Hydraulic drain means for servo-systems
 [NASA-CASE-NPO-10316-1] c37 N77-22479
 Automated multi-level vehicle parking system
 [NASA-CASE-NPO-13058-1] c37 N77-22480
 Solar hydrogen generator
 [NASA-CASE-NPO-11361-1] c44 N77-22607
 Sun direction detection system
 [NASA-CASE-NPO-13722-1] c74 N77-22951
 Phase conjugation method and apparatus for an
 active retrodirective antenna array
 [NASA-CASE-NPO-13641-1] c32 N77-24340
 Compact pulsed laser having improved heat
 conductance
 [NASA-CASE-NPO-13147-1] c36 N77-25502

SOURCE INDEX

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. CONTD

Internal combustion engine with electrostatic discharging fuels
[NASA-CASE-NPO-13798-1] c37 N77-25535

Isotope separation using metallic vapor lasers
[NASA-CASE-NPO-13550-1] c36 N77-26477

Distributed feedback acoustic surface wave oscillator
[NASA-CASE-NPO-13673-1] c71 N77-26919

Penetrometer
[NASA-CASE-NPO-11103-1] c35 N77-27367

Polymeric electrolytic hygrometer
[NASA-CASE-NPO-13948-1] c35 N77-28470

A solar array strip and a method for forming the same
[NASA-CASE-NPO-13652-1] c44 N77-28585

Lightweight reflector assembly
[NASA-CASE-NPO-13707-1] c74 N77-28933

Aldehyde-containing urea-absorbing polysaccharides
[NASA-CASE-NPO-13620-1] c27 N77-30236

Phase substitution of spare converter for a failed one of parallel phase staggered converters
[NASA-CASE-NPO-13812-1] c33 N77-30365

Production of crystals from molten solutions
[NASA-CASE-NPO-13969-2] c76 N77-30984

Oil and fat absorbing polymers
[NASA-CASE-NPO-11609-2] c27 N77-31308

Combustion engine
[NASA-CASE-NPO-13671-1] c37 N77-31497

Apparatus for photon excited catalysis
[NASA-CASE-NPO-13566-1] c25 N77-32255

Strong thin membrane structure
[NASA-CASE-NPO-14021-1] c27 N77-32313

Charge-coupled device data processor for an airborne imaging radar system
[NASA-CASE-NPO-13587-1] c32 N77-32342

Circuit for automatic load sharing in parallel converter modules
[NASA-CASE-NPO-14056-1] c33 N77-32402

Direct reading inductance meter
[NASA-CASE-NPO-13792-1] c35 N77-32455

Solar photolysis of water
[NASA-CASE-NPO-13675-1] c44 N77-32580

Low to high temperature energy conversion system
[NASA-CASE-NPO-13510-1] c44 N77-32581

Solar energy collection system
[NASA-CASE-NPO-13810-1] c44 N77-32582

Three-dimensional tracking solar energy concentrator and method for making same
[NASA-CASE-NPO-13736-1] c44 N77-32583

Compact artificial hand
[NASA-CASE-NPO-13906-1] c54 N77-32723

Overload protection system for power inverter
[NASA-CASE-NPO-13872-1] c33 N78-10377

Photoelectron spectrometer with means for stabilizing sample surface potential
[NASA-CASE-NPO-13772-1] c35 N78-10429

Machine for use in monitoring fatigue life for a plurality of elastomeric specimens
[NASA-CASE-NPO-13731-1] c39 N78-10493

Portable linear-focused solar thermal energy collecting system
[NASA-CASE-NPO-13734-1] c44 N78-10554

Acoustic energy shaping
[NASA-CASE-NPO-13802-1] c71 N78-10837

Machine for forming a solar array strip
[NASA-CASE-NPO-13652-2] c37 N78-13441

High voltage, high current Schottky barrier solar cell
[NASA-CASE-NPO-13482-1] c44 N78-13526

High resolution threshold photoelectron spectroscopy by electron attachment
[NASA-CASE-NPO-14078-1] c76 N78-13917

Durable antistatic coating for polyethylmethacrylate
[NASA-CASE-NPO-13867-1] c27 N78-14164

Ultra stable frequency distribution system
[NASA-CASE-NPO-13836-1] c32 N78-15323

Selective image area control of X-ray film exposure density
[NASA-CASE-NPO-13808-1] c35 N78-15461

Motion restraining device
[NASA-CASE-NPO-13619-1] c37 N78-16369

Ruler for making navigational computations
[NASA-CASE-NPO-01458] c04 N78-17031

Nuclear alkylated pyridine aldehyde polymers and conductive compositions thereof
[NASA-CASE-NPO-10557] c27 N78-17214

Method of adhering bone to a rigid substrate using a graphite fiber reinforced bone cement
[NASA-CASE-NPO-13764-1] c27 N78-17215

High performance ammonium nitrate propellant
[NASA-CASE-NPO-14260] c28 N78-17230

Purging means and method for Xenon arc lamps
[NASA-CASE-NPO-11978] c31 N78-17238

Pressure transducer
[NASA-CASE-NPO-11150] c35 N78-17359

Wobble gear drive mechanism
[NASA-CASE-NPO-00625] c37 N78-17385

Apparatus for handling micron size range particulate material
[NASA-CASE-NPO-10151] c37 N78-17386

A speed control device for a heavy duty shaft
[NASA-CASE-NPO-14170] c37 N78-17391

Cross correlation anomaly detection system
[NASA-CASE-NPO-13283] c38 N78-17395

Automatic visual inspection system for microelectronics
[NASA-CASE-NPO-13282] c38 N78-17396

Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] c44 N78-17460

System for near real-time crustal deformation monitoring
[NASA-CASE-NPO-14124-1] c46 N78-17529

Differential optoacoustic absorption detector
[NASA-CASE-NPO-13759-1] c74 N78-17867

Clutter free synthetic aperture radar correlator
[NASA-CASE-NPO-14035-1] c32 N78-18266

Interferometer mirror tilt correcting system
[NASA-CASE-NPO-13687-1] c35 N78-18391

Over-under double-pass interferometer
[NASA-CASE-NPO-13999-1] c35 N78-18395

Independent gain and bandwidth control of a traveling wave maser
[NASA-CASE-NPO-13801-1] c36 N78-18410

High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-1] c27 N78-19302

Microwave power converter
[NASA-CASE-NPO-14068-1] c44 N78-19609

Resolution enhanced sound detecting apparatus
[NASA-CASE-NPO-14134-1] c71 N78-19898

Liquid reactant feeder for arc assisted metal alloy reduction reactor
[NASA-CASE-NPO-14382-1] c25 N78-22385

A sodium storage and injection system
[NASA-CASE-NPO-14384-1] c25 N78-22387

Module failure isolation circuit for paralleled inverters
[NASA-CASE-NPO-14000-1] c33 N78-22299

Redundant operation of counter modules
[NASA-CASE-NPO-14162-1] c35 N78-22347

System for forming a quadrifid image comprising angularly related fields of view of a three dimensional object
[NASA-CASE-NPO-14219-1] c35 N78-22348

Dielectric-loaded waveguide circulator for cryogenically cooled and cascaded maser waveguide structures
[NASA-CASE-NPO-14254-1] c36 N78-22359

Improved base drive for paralleled inverter systems
[NASA-CASE-NPO-14163-1] c37 N78-22376

Double-sided solar cell package
[NASA-CASE-NPO-14199-1] c44 N78-22470

Biocontamination and particulate detection system
[NASA-CASE-NPO-13953-1] c51 N78-22587

Velocity servo for continuous scan Fourier interference spectrometer
[NASA-CASE-NPO-14093-1] c74 N78-22891

Underground mineral extraction
[NASA-CASE-NPO-14140-1] c31 N78-24387

Thin conformal antenna array for microwave power conversions
[NASA-CASE-NPO-13886-1] c32 N78-24391

Versatile transponder receiver
[NASA-CASE-NPO-14248-1] c32 N78-24402

Portable heatable container
[NASA-CASE-NPO-14237-1] c37 N78-24554

A method of growing a ribbon crystal particularly suited for facilitating automated control of ribbon width
[NASA-CASE-NPO-14295-1] c76 N78-24952

High temperature resistant cermet and ceramic compositions
[NASA-CASE-NPO-13690-3] c27 N78-25219

Multistation refrigeration system
 [NASA-CASE-NPO-13839-1] c31 N78-25256
 Satellite personal communications system
 [NASA-CASE-NPO-14480-1] c32 N78-25275
 Swept group delay measurement
 [NASA-CASE-NPO-13909-1] c33 N78-25319
 Polymeric electrolytic hygrometer
 [NASA-CASE-NPO-13948-1] c35 N78-25391
 Soft X-ray laser using crystal channels as
 distributed feedback cavities
 [NASA-CASE-NPO-13532-2] c36 N78-25409
 Power control for hot gas engines
 [NASA-CASE-NPO-14220-1] c37 N78-25430
 Hot gas engine with dual crankshafts
 [NASA-CASE-NPO-14221-1] c37 N78-25431
 A tool for use in joining connectors to shielded
 cables
 [NASA-CASE-NPO-14296-1] c37 N78-25432
 A solar array strip and a method for forming the
 same
 [NASA-CASE-NPO-13652-3] c44 N78-25560
 Process for manufacturing cannula
 [NASA-CASE-NPO-14073-1] c52 N78-25762
 On-site ammonia plant
 [NASA-CASE-NPO-14233-1] c25 N78-27233
 A method of prepurifying metallurgical grade
 silicon employing reduced pressure atmospheric
 control
 [NASA-CASE-NPO-14474-1] c26 N78-27255
 Method for analyzing radiation sensitivity of
 integrated circuits
 [NASA-CASE-NPO-14350-1] c33 N78-27330
 Viscosity measuring instrument
 [NASA-CASE-NPO-14501-1] c35 N78-27385
 Charge transfer reaction laser with
 preionization means
 [NASA-CASE-NPO-13945-1] c36 N78-27402
 Hexagon solar power panel
 [NASA-CASE-NPO-12148-1] c44 N78-27515
 An improved solar cell and method of forming the
 same
 [NASA-CASE-NPO-14205-1] c44 N78-27541
 Apparatus for measuring semiconductor device
 resistance
 [NASA-CASE-NPO-14424-1] c33 N78-28340
 Beam center location method and apparatus for
 power transmission system
 [NASA-CASE-NPO-13821-1] c44 N78-28594
 Driver for solar cell I-V characteristic plots
 [NASA-CASE-NPO-14096-1] c44 N78-28625
 Method of fabricating a photovoltaic of a
 substantially transparent construction
 [NASA-CASE-NPO-14303-1] c44 N78-28626
 Control for nuclear thermionic power source
 [NASA-CASE-NPO-13114-2] c73 N78-28913
 Magneto-optic detection system with noise
 cancellation
 [NASA-CASE-NPO-11954-1] c35 N78-29421
 Nitramine propellants
 [NASA-CASE-NPO-14103-1] c28 N78-31255
 Reflex feed system for dual frequency antenna
 with frequency cutoff means
 [NASA-CASE-NPO-14022-1] c32 N78-31321
 Solar pond
 [NASA-CASE-NPO-13581-2] c44 N78-31525
 Non-tracking solar energy collector system
 [NASA-CASE-NPO-13813-1] c44 N78-31526
 Coal desulfurization process
 [NASA-CASE-NPO-13937-1] c44 N78-31527
 Solid propellant motor
 [NASA-CASE-NPO-11458A] c20 N78-32179
 Coal desulfurization
 [NASA-CASE-NPO-14272-1] c25 N78-33164
 Thermoplastic rubber comprising ethylene-vinyl
 acetate copolymer, asphalt and fluxing oil
 [NASA-CASE-NPO-8835] c27 N78-33228
 Hydrogen-fueled engine
 [NASA-CASE-NPO-13763-1] c44 N78-33526
 Plural output optometric sample cell and
 analysis system
 [NASA-CASE-NPO-10233-1] c74 N78-33913
 Interferometric locating system
 [NASA-CASE-NPO-14173-1] c04 N79-10039
 Portable electrophoresis apparatus using minimum
 electrolyte
 [NASA-CASE-NPO-13274-1] c25 N79-10163
 Ozonation of cooling tower waters
 [NASA-CASE-NPO-14340-1] c25 N79-10167

A process for converting amorphous to
 crystalline silicon with attendant purification
 [NASA-CASE-NPO-14223-1] c25 N79-10168
 Stark cell optoacoustic detection of constituent
 gases in sample
 [NASA-CASE-NPO-14143-1] c25 N79-10169
 Silicone containing solid propellant
 [NASA-CASE-NPO-14477-1] c28 N79-10224
 Recovery of aluminum and binder from composite
 propellants
 [NASA-CASE-NPO-14110-1] c28 N79-10225
 Process for the leaching of AP from propellant
 [NASA-CASE-NPO-14109-1] c28 N79-10227
 An improved system for slicing silicon wafers
 [NASA-CASE-NPO-14406-1] c31 N79-10245
 Support assembly for cryogenically coolable
 low-noise choked waveguide
 [NASA-CASE-NPO-14253-1] c31 N79-10246
 Automatic communication signal monitoring system
 [NASA-CASE-NPO-13941-1] c32 N79-10262
 Microwave power transmission beam safety system
 [NASA-CASE-NPO-14224-1] c32 N79-10271
 Surface roughness measuring system
 [NASA-CASE-NPO-13862-1] c35 N79-10391
 Stark cell spectrophone with polarization
 modulation
 [NASA-CASE-NPO-14362-1] c35 N79-10392
 Vehicular impact absorption system
 [NASA-CASE-NPO-14014-1] c37 N79-10420
 A quartz ball valve
 [NASA-CASE-NPO-14473-1] c37 N79-10427
 Dual membrane hollow fiber fuel cell and method
 of operating same
 [NASA-CASE-NPO-13732-1] c44 N79-10513
 An improved solar cell module
 [NASA-CASE-NPO-14467-1] c44 N79-10529
 A method and means for growing ribbon crystals
 without subjecting the crystals to thermal
 shock-induced strains
 [NASA-CASE-NPO-14298-1] c76 N79-10917
 An improved apparatus for use in the production
 of ribbon-shaped crystals from a silicon melt
 [NASA-CASE-NPO-14297-1] c76 N79-10918
 Combuster
 [NASA-CASE-NPO-13958-1] c25 N79-11151
 Surfactant-assisted liquefaction of particulate
 carbonaceous substances
 [NASA-CASE-NPO-13904-1] c25 N79-11152
 Electroexplosive device
 [NASA-CASE-NPO-13858-1] c28 N79-11231
 Space-charge-limited solid-state triode
 [NASA-CASE-NPO-13064-1] c33 N79-11314
 Plasma igniter for internal combustion engine
 [NASA-CASE-NPO-13828-1] c37 N79-11405
 Solar photolysis of water
 [NASA-CASE-NPO-14126-1] c44 N79-11470
 Non-tracking solar energy collector system
 [NASA-CASE-NPO-13817-1] c44 N79-11471
 Method of controlling defect orientation in
 silicon crystal ribbon growth
 [NASA-CASE-NPO-13918-1] c76 N79-11920
 Method and means for helium/hydrogen ratio
 measurement by alpha scattering
 [NASA-CASE-NPO-14079-1] c35 N79-12416
 An improved suspension system for a wheel
 rolling on a flat track
 [NASA-CASE-NPO-14395-1] c37 N79-12446
 Method and apparatus for measuring minority
 carrier lifetimes and bulk diffusion length in
 P-N junction solar cells
 [NASA-CASE-NPO-14100-1] c44 N79-12541
 Automated clinical system for chromosome analysis
 [NASA-CASE-NPO-13913-1] c52 N79-12694
 Conical scan tracking system employing a large
 antenna
 [NASA-CASE-NPO-14009-1] c32 N79-13214
 Stabilization of He2(a 3 Sigma u+ molecules in
 liquid helium by optical pumping for vacuum UV
 laser 6
 [NASA-CASE-NPO-13993-1] c72 N79-13826
 High temperature resistant cermet and ceramic
 compositions
 [NASA-CASE-NPO-13690-2] c27 N79-14213
 Inhibited solid propellant composition
 containing beryllium hydride
 [NASA-CASE-NPO-10866-1] c28 N79-14228
 Digital demodulator-correlator
 [NASA-CASE-NPO-13982-1] c32 N79-14267

SOURCE INDEX

NORTH AMERICAN AVIATION, INC.,

Azimuth correlator for real-time synthetic aperture radar image processing
 [NASA-CASE-NPO-14019-1] c32 N79-14268
 Radio frequency arraying method for receivers
 [NASA-CASE-NPO-14328-1] c32 N79-14272
 Discriminator aided phase lock acquisition for suppressed carrier signals
 [NASA-CASE-NPO-14311-1] c32 N79-14276
 Frequency translating phase conjugation circuit for active retrodirective antenna array
 [NASA-CASE-NPO-14536-1] c32 N79-14277
 Real-time multiple-look synthetic aperture radar processor for spacecraft applications
 [NASA-CASE-NPO-14054-1] c32 N79-14278
 Apparatus for providing a servo drive signal in a high-speed stepping interferometer
 [NASA-CASE-NPO-13569-2] c35 N79-14348
 High-torque open-end wrench
 [NASA-CASE-NPO-13541-1] c37 N79-14383
 Fluidized bed coal combustion reactor
 [NASA-CASE-NPO-14273-1] c37 N79-14388
 Sun tracking solar energy collector
 [NASA-CASE-NPO-13921-1] c44 N79-14526
 Primary reflector for solar energy collection systems
 [NASA-CASE-NPO-13579-4] c44 N79-14529
 Gas diffusion liquid storage bag and method of use for storing blood
 [NASA-CASE-NPO-13930-1] c52 N79-14749
 Coupling apparatus for ultrasonic medical diagnostic system
 [NASA-CASE-NPO-13935-1] c52 N79-14751
 High-speed multiplexing of keyboard data inputs
 [NASA-CASE-NPO-14554-1] c50 N79-14797
 Photomechanical transducer
 [NASA-CASE-NPO-14363-1] c76 N79-14908
 Thermomagnetic recording and magnetic-optic playback system
 [NASA-CASE-NPO-10872-1] c35 N79-14246
 Manganese bismuth films with narrow transfer characteristics for Curie-point switching
 [NASA-CASE-NPO-11336-1] c76 N79-16678
 Multifrequency broadband horn antenna
 [NASA-CASE-NPO-14588-1] c32 N79-17067
 Dual band combiner for horn antenna
 [NASA-CASE-NPO-14519-1] c32 N79-17068
 CCD correlated quadruple sampling processor
 [NASA-CASE-NPO-14426-1] c33 N79-17134
 Cooled echelle grating spectrometer
 [NASA-CASE-NPO-14372-1] c35 N79-17196
 A phase-angle controller for stirling engines
 [NASA-CASE-NPO-14388-1] c37 N79-17217
 Multispectral imaging and analysis system
 [NASA-CASE-NPO-13691-1] c43 N79-17288
 Solar array strip and a method for forming the same
 [NASA-CASE-NPO-13652-1] c44 N79-17314
 Method of mitigating titanium impurities effects in P-type silicon material for solar cells
 [NASA-CASE-NPO-14635-1] c44 N79-17315
 Double-beam optical method and apparatus for measuring thermal diffusivity and other molecular dynamic processes in utilizing the transient thermal lens effect
 [NASA-CASE-NPO-14657-1] c74 N79-17683
 Process for purification of waste water produced by a Kraft process pulp and paper mill
 [NASA-CASE-NPO-13847-2] c85 N79-17747
 Method and apparatus for quadriphase-shift-key and linear phase modulation
 [NASA-CASE-NPO-14444-1] c32 N79-18155
 PN lock indicator for dithered PN code tracking loop
 [NASA-CASE-NPO-14435-1] c33 N79-18224
 Thermal energy transformer
 [NASA-CASE-NPO-14058-1] c44 N79-18443
 An improved solar panel and method for fabricating the same
 [NASA-CASE-NPO-14490-1] c44 N79-18445
 Method and apparatus for fabricating improved solar cell modules
 [NASA-CASE-NPO-14416-1] c44 N79-18446
 Electromagnetic radiation energy arrangement
 [NASA-CASE-NPO-00428-1] c32 N79-19186
 Multibeam single frequency synthetic aperture radar processor for imaging separate range swaths
 [NASA-CASE-NPO-14525-1] c32 N79-19195
 Interferometer
 [NASA-CASE-NPO-14502-1] c35 N79-19317
 Borehole geological assessment
 [NASA-CASE-NPO-14231-1] c46 N79-19521
 Apparatus for endoscopic examination
 [NASA-CASE-NPO-14092-1] c52 N79-19678
 Low cost cryostat
 [NASA-CASE-NPO-14513-1] c31 N79-20283
 Controller for computer control of brushless DC motors
 [NASA-CASE-NPO-13970-1] c33 N79-20315
 Method and turbine for extracting kinetic energy from a stream of two-phase fluid
 [NASA-CASE-NPO-14130-1] c34 N79-20335
 Multi-channel rotating optical interface for data transmission
 [NASA-CASE-NPO-14066-1] c44 N79-20496
 An improved solar energy receiver for a stirling engine
 [NASA-CASE-NPO-14619-1] c44 N79-20513
 A system for plotting subsoil structure and method therefor
 [NASA-CASE-NPO-14191-1] c46 N79-20555
 A system for detecting substructure microfractures and method therefor
 [NASA-CASE-NPO-14192-1] c46 N79-20556
 Terminal guidance sensor system
 [NASA-CASE-NPO-14521-1] c54 N79-20746
 Digital data reformatter/deserializer
 [NASA-CASE-NPO-13676-1] c60 N79-20751
 Acoustic driving of rotor
 [NASA-CASE-NPO-14005-1] c71 N79-20827
 System and method for obtaining wide screen Schlieren photographs
 [NASA-CASE-NPO-14174-1] c74 N79-20856
 Dynamic capacitor having a peripherally driven element and system incorporating the same
 [NASA-CASE-NXP-02899-1] c33 N79-21265
 Pulse switching for high energy lasers
 [NASA-CASE-NPO-14556-1] c36 N79-21336
 NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WESTERN OPERATIONS OFFICE, SANTA MONICA, CALIF.
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 [NASA-CASE-NXP-04731] c15 N71-24042
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 [NASA-CASE-NFS-23845-1] c33 N78-32347
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 [NASA-CASE-KSC-10698] c07 N73-20175
 NATIONAL RESEARCH CORP., CAMBRIDGE, MASS.
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 [NASA-CASE-XGS-07752] c14 N73-30390
 Ultrahigh vacuum measuring ionization gauge
 [NASA-CASE-XLA-05087] c14 N73-30391
 Apparatus for absolute pressure measurement
 [NASA-CASE-LAR-10000] c14 N73-30394
 Ultrahigh vacuum gauge having two collector electrodes
 [NASA-CASE-LAR-02743] c14 N73-32324
 Rock sampling
 [NASA-CASE-NXP-10007-1] c46 N74-23068
 Rock sampling
 [NASA-CASE-NXP-09755] c46 N74-23069
 NEW ENGLAND MEDICAL CENTER HOSPITALS, BOSTON, MASS.
 Determination of antimicrobial susceptibilities on infected urines without isolation
 [NASA-CASE-GSC-12046-1] c52 N79-14750
 NORTH AMERICAN AVIATION, INC., CANOGA PARK, CALIF.
 Method of joining aluminum to stainless steel Patent
 [NASA-CASE-NFS-07369] c15 N71-20443
 Propellant mass distribution metering apparatus Patent
 [NASA-CASE-NPO-10185] c10 N71-26339
 Safety-type locking pin
 [NASA-CASE-NFS-18495] c15 N72-11385
 Hydrogen fire detection system with logic circuit to analyze the spectrum of temporal variations of the optical spectrum
 [NASA-CASE-NFS-13130] c10 N72-17173
 NORTH AMERICAN AVIATION, INC., DOWNEY, CALIF.
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 High pressure air valve Patent
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 Load relieving device Patent
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 Optical projector system Patent
 [NASA-CASE-XNP-03853] c23 N71-21882
 Brazing alloy Patent
 [NASA-CASE-XNP-03063] c17 N71-23365
 Vibrophonocardiograph Patent
 [NASA-CASE-XPR-07172] c05 N71-27234
NORTH AMERICAN AVIATION, INC., EL SEGUNDO, CALIF.
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 [NASA-CASE-XGS-01143] c31 N71-15647
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 [NASA-CASE-XMS-03613] c31 N71-16346
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 [NASA-CASE-XMS-08589-1] c09 N71-20569
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 Etching of aluminum for bonding Patent
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 Method and apparatus for varying thermal conductivity Patent
 [NASA-CASE-XNP-05524] c33 N71-24876
 Purge device for thrust engines Patent
 [NASA-CASE-XMS-04826] c28 N71-28849
 Method and construction for protecting heat sensitive bodies from thermal radiation and convective heat Patent
 [NASA-CASE-XNP-01310] c33 N71-28852
 Propellant tank pressurization system Patent
 [NASA-CASE-XNP-00650] c27 N71-28929
 Spherical shield Patent
 [NASA-CASE-XNP-01855] c15 N71-28937
 Universal restrainer and joint Patent
 [NASA-CASE-XNP-02278] c15 N71-28951
 Method and device for cooling Patent
 [NASA-CASE-XNP-00938] c33 N71-29053
NORTH AMERICAN AVIATION, INC., LOS ANGELES, CALIF.
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 [NASA-CASE-XPR-08403] c05 N71-11202
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 [NASA-CASE-XNP-02307] c14 N71-10779
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 Noncontaminating swabs
 [NASA-CASE-MFS-18100] c15 N72-11390
 Observation window for a gas confining chamber
 [NASA-CASE-NPO-10890] c11 N73-12265
 Droplet monitoring probe
 [NASA-CASE-NPO-10985] c14 N73-20478
 Circuit board package with wedge shaped covers
 [NASA-CASE-MFS-21919-1] c10 N73-25243
 Heat flow calorimeter
 [NASA-CASE-GSC-11434-1] c34 N74-27859
NORTH AMERICAN ROCKWELL CORP., DOWNEY, CALIF.
 Spacecraft Patent
 [NASA-CASE-MSC-13047-1] c31 N71-25434
 Latching mechanism Patent
 [NASA-CASE-MSC-15474-1] c15 N71-26162
 Dye penetrant for surfaces subsequently contacted by liquid oxygen Patent
 [NASA-CASE-XNP-02221] c18 N71-27170
 Aircraft crash locator apparatus
 [NASA-CASE-MFS-16609] c14 N72-21431
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 Impact monitoring apparatus
 [NASA-CASE-MSC-15626-1] c14 N72-25411
 Bonding or repairing process
 [NASA-CASE-MSC-12357] c15 N73-12489
 Self-cycling fluid heater
 [NASA-CASE-MSC-15567-1] c33 N73-16918
 Phase protection system for ac power lines
 [NASA-CASE-MSC-17832-1] c33 N74-14956
 Apparatus for remote handling of materials
 [NASA-CASE-LAR-10634-1] c37 N74-18123
 Grain refinement control in TIG arc welding
 [NASA-CASE-MSC-19095-1] c37 N75-19683

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 [NASA-CASE-MSC-15158-1] c14 N72-17325
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 [NASA-CASE-XER-09213] c07 N71-12390
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 [NASA-CASE-NPO-12109] c11 N72-22245
 Folding structure fabricated of rigid panels
 [NASA-CASE-XHO-02146] c18 N75-27040
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 [NASA-CASE-FRC-10029-2] c05 N72-25121
 Valve seat
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 [NASA-CASE-NPO-10051] c18 N71-24934
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 Aromatic diamine-aromatic dialdehyde high molecular weight schiff base polymers prepared in a monofunctional schiff base Patent
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 O
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 [NASA-CASE-MSC-14472-1] c43 N77-10584
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 [NASA-CASE-LAR-11476-1] c07 N76-27232
 Differential sound level meter
 [NASA-CASE-LAR-12106-1] c71 N78-14867
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[NASA-CASE-NPO-10768-2] c06 N72-27144

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[NASA-CASE-MSC-12165-1] c07 N71-33696

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[NASA-CASE-GSC-12334-1] c36 N79-14362

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[NASA-CASE-IMS-01624] c15 N70-40062

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[NASA-CASE-IMS-01618] c14 N71-20741

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[NASA-CASE-IMS-01625] c15 N71-23022

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[NASA-CASE-MSC-13436-1] c05 N73-32015

R

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[NASA-CASE-IGS-05003] c09 N69-24318

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Radiation resistant silicon semiconductor devices Patent
[NASA-CASE-XGS-07801] c09 N71-12513

GaAs solar detector using manganese as a doping agent Patent
[NASA-CASE-INP-01328] c26 N71-18064

Thermocouple assembly Patent
[NASA-CASE-INP-01659] c14 N71-23039

Method of erasing target material of a vidicon tube or the like Patent
[NASA-CASE-INP-06028] c09 N71-23189

Transient augmentation circuit for pulse amplifiers Patent
[NASA-CASE-INP-01068] c10 N71-28739

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[NASA-CASE-INP-01960] c09 N71-23027

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[NASA-CASE-INP-01959] c26 N71-23043

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[NASA-CASE-INP-08124] c15 N71-27184

Maximum power point tracker Patent
[NASA-CASE-GSC-10376-1] c14 N71-27407

Method of changing the conductivity of vapor deposited gallium arsenide by the introduction of water into the vapor deposition atmosphere Patent
[NASA-CASE-INP-01961] c26 N71-29156

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[NASA-CASE-NPO-10828] c33 N72-17948

Target acquisition antenna
[NASA-CASE-GSC-10064-1] c10 N72-22235

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[NASA-CASE-INP-08124-2] c06 N73-13129

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[NASA-CASE-GSC-10791-1] c15 N73-14469

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[NASA-CASE-NPO-12070-1] c28 N73-32606

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[NASA-CASE-GSC-11560-1] c33 N74-20861

Frequency measurement by coincidence detection with standard frequency
[NASA-CASE-MSC-14649-1] c33 N76-16331

A method and means for growing ribbon crystals without subjecting the crystals to thermal shock-induced strains
[NASA-CASE-NPO-14298-1] c76 N79-10597

An improved solar panel and method for fabricating the same
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[NASA-CASE-NPS-14259] c15 N71-19213

Hydrogen leak detection device Patent
[NASA-CASE-NPS-11537] c14 N71-20442

Technique of elbow bending small jacketed transfer lines Patent
[NASA-CASE-XNP-10475] c15 N71-24679

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Locking device for turbine rotor blades Patent
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Laser camera and diffusion filter therefore Patent
[NASA-CASE-NPO-10417] c16 N71-33410

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[NASA-CASE-NPO-12000] c27 N72-25699

Hydrazinium nitroformate propellant with saturated polymeric hydrocarbon binder
[NASA-CASE-NPO-12015] c27 N73-16764

Novel polymers and method of preparing same
[NASA-CASE-NPO-10998-1] c06 N73-32029

Internally supported flexible duct joint
[NASA-CASE-NPS-19193-1] c37 N75-19686

Method of heat treating age-hardenable alloys
[NASA-CASE-XNP-01311] c26 N75-29236

Thrust measurement
[NASA-CASE-XNS-05731] c35 N75-29382

Device for installing rocket engines
[NASA-CASE-NPS-19220-1] c20 N76-22296

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Brazing alloy binder
[NASA-CASE-XNP-05868] c26 N75-27125

Brazing alloy composition
[NASA-CASE-XNP-06053] c26 N75-27126

Brazing alloy
[NASA-CASE-XNP-03878] c26 N75-27127

Method and apparatus for vibration analysis utilizing the Mossbauer effect
[NASA-CASE-XNP-05882] c35 N75-27329

Externally supported internally stabilized flexible duct joint
[NASA-CASE-NPS-19194-1] c37 N76-14460

Accumulator
[NASA-CASE-NPS-19287-1] c34 N77-30399

Laser extensometer
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Stable superconducting magnet
[NASA-CASE-XNP-05373-1] c33 N79-21264

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Insulation for piping
[NASA-CASE-MSC-19523-1] c31 N76-16245

Apparatus for positioning modular components on a vertical or overhead surface
[NASA-CASE-LAR-11465-1] c37 N76-21554

Flanged major modular assembly jig
[NASA-CASE-MSC-19372-1] c39 N76-31562

Aircraft-mounted crash-activated transmitter device
[NASA-CASE-NPS-16609-3] c03 N76-32140

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Mechanical sequencer
[NASA-CASE-MSC-19536-1] c37 N77-22482

Non-floating universal joint
[NASA-CASE-MSC-19546-1] c37 N77-25536

Load regulating latch
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Adjustable securing base
[NASA-CASE-MSC-19666-1] c37 N78-17383

System for automatically switching transformer coupled lines
[NASA-CASE-MSC-16697-1] c33 N78-22298

Method of producing complex aluminum alloy parts of high temper, and products thereof
[NASA-CASE-MSC-19693-1] c26 N78-24333

Flexible pile thermal barrier insulator
[NASA-CASE-MSC-19568-1] c34 N78-25350

Variable contour securing system
[NASA-CASE-MSC-16270-1] c37 N78-27423

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[NASA-CASE-MSC-19706-1] c09 N78-31129

A pressure limiting propellant actuating system
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[NASA-CASE-MSC-16938-1] c37 N78-32431

A method and technique for installing light-weight fragile, high-temperature fiber insulation
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[NASA-CASE-MSC-16973-1] c37 N79-17224

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Coaxial phased array antenna
[NASA-CASE-MSC-16800-1] c32 N79-19194

Sequencing device utilizing planetary gear set
[NASA-CASE-MSC-19514-1] c37 N79-20377

ROCKWELL INTERNATIONAL CORP., LOS ANGELES, CALIF.

Length mode piezoelectric ultrasonic transducer for inspection of solid objects
[NASA-CASE-MSC-19672-1] c38 N79-14398

ROPH CORP., CHULA VISTA, CALIF.

Method of forming shapes from planar sheets of thermosetting materials
[NASA-CASE-NPO-11036] c15 N72-24522

ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH (ENGLAND).

Garments for controlling the temperature of the body Patent
[NASA-CASE-XNS-10269] c05 N71-24147

RYAN AERONAUTICAL CO., SAN DIEGO, CALIF.

Wing deployment method and apparatus Patent
[NASA-CASE-XNS-00907] c02 N70-41630

Masking device Patent
[NASA-CASE-XNP-02092] c15 N70-42033

S

SAN FRANCISCO UNIV., CALIF.

Micro-fluid exchange coupling apparatus
[NASA-CASE-ARC-11114-1] c52 N78-33717

SAN JOSE STATE UNIV., CALIF.

Chelate-modified polymers for atmospheric gas chromatography
[NASA-CASE-ARC-11154-1] c27 N78-27275

SANDERS ASSOCIATES, INC., WASHUA, N. H.

Increasing efficiency of switching type regulator circuits Patent
[NASA-CASE-XNS-09352] c09 N71-23316

SANTA BARBARA RESEARCH CENTER, GOLETA, CALIF.

Camera arrangement
[NASA-CASE-GSC-12032-2] c35 N76-19408

SANTA CLARA UNIV., CALIF.

Reversed cowl flap inlet thrust augmentor
[NASA-CASE-ARC-10754-1] c07 N75-24736

Noise suppressor for turbo fan jet engines
[NASA-CASE-ARC-10812-1] c07 N76-18131

System for measuring Reynolds in a turbulently flowing fluid
[NASA-CASE-ARC-10755-2] c34 N76-27517

System for measuring three fluctuating velocity components in a turbulently flowing fluid
[NASA-CASE-ARC-10974-1] c34 N77-27345

SCHJELDHAHL (G. T.) CO., NORTHFIELD, MINN.

Rotating mandrel for assembly of inflatable devices Patent
[NASA-CASE-XLA-04143] c15 N71-17687

Traveling sealer for contoured table Patent
[NASA-CASE-XLA-01494] c15 N71-24164

SCIENCE APPLICATIONS, INC., LA JOLLA, CALIF.

Process for producing flame resistant polyamides and products produced thereby
[NASA-CASE-MSC-16074-1] c27 N77-14262

SCOTT AVIATION CORP., LANCASTER, N. Y.

Self-contained breathing apparatus
[NASA-CASE-MSC-14733-1] c54 N76-24900

SERY-AIR, INC., HOUSTON, TEX.

Stator rotor tools
[NASA-CASE-MSC-16000-1] c37 N78-24544

SHELDON CO., NORTHFIELD, MINN.

Method and apparatus for preparing multiconductor cable with flat conductors
[NASA-CASE-NPS-10946-1] c31 N79-21226

Edge coating of flat wires
[NASA-CASE-XNP-05757-1] c31 N79-21227

SIKORSKY AIRCRAFT, STRATFORD, CONN.

Locking redundant link
[NASA-CASE-LAR-11900-1] c37 N79-14382

Compensating linkage for main rotor control
[NASA-CASE-LAR-11797-1] c08 N79-15057

SINGER-GENERAL PRECISION, INC., BINGHAMTON, N. Y.
 CRT blanking and brightness control circuit
 [NASA-CASE-KSC-10647-1] c10 N72-31273

SMITH ELECTRONICS, INC., CLEVELAND, OHIO.
 Phase detector assembly Patent
 [NASA-CASE-INP-00701] c09 N70-40272

SMITHSONIAN ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASS.
 Atomic hydrogen maser with bulb temperature control to remove wall shift in maser output frequency
 [NASA-CASE-HQN-10654-1] c16 N73-13489
 Tunable cavity resonator with ramp shaped supports
 [NASA-CASE-HQN-10790-1] c36 N74-11313

SOLID STATE RADIATIONS, INC., LOS ANGELES, CALIF.
 Biomedical radiation detecting probe. Patent
 [NASA-CASE-INS-01177] c05 N71-19440

SOUTHERN METHODIST UNIV., DALLAS, TEX.
 Growth of gallium nitride crystals
 [NASA-CASE-LAR-11302-1] c25 N75-13054
 Process for utilizing low-cost graphite substrates for polycrystalline solar cells
 [NASA-CASE-GSC-12022-2] c44 N78-24609

SOUTHERN RESEARCH INST., BIRMINGHAM, ALA.
 Infusible silazane polymer and process for producing same
 [NASA-CASE-INP-02526-1] c27 N79-21190

SPACE SCIENCES, INC., WALTHAM, MASS.
 Doppler shift system
 [NASA-CASE-HQN-10740-1] c72 N74-19310

SPACE TECHNOLOGY LABS., INC., BEDONDO BEACH, CALIF.
 Method and apparatus for measuring potentials in plasmas Patent
 [NASA-CASE-XLE-00821] c25 N71-15650
 AC logic flip-flop circuits Patent
 [NASA-CASE-XGS-00823] c10 N71-15910
 Apparatus for field strength measurement of a space vehicle Patent
 [NASA-CASE-XLE-00820] c14 N71-16014
 Hermetically sealed explosive release mechanism Patent
 [NASA-CASE-XGS-00824] c15 N71-16078
 Apparatus for measuring electric field strength on the surface of a model vehicle Patent
 [NASA-CASE-XLE-02038] c09 N71-16086
 Solar cell mounting Patent
 [NASA-CASE-INP-00826] c03 N71-20895
 Prestressed refractory structure Patent
 [NASA-CASE-INP-02888] c18 N71-21068
 Linear accelerator frequency control system Patent
 [NASA-CASE-XGS-05441] c10 N71-22962
 Fluid lubricant system Patent
 [NASA-CASE-INP-03972] c15 N71-23048
 Compensating bandwidth switching transients in an amplifier circuit Patent
 [NASA-CASE-INP-01107] c10 N71-28859

SPACELABS, INC., VAN NUYS, CALIF.
 Peak polarity selector Patent
 [NASA-CASE-FRC-10010] c10 N71-24862
 Respiration monitor
 [NASA-CASE-FRC-10012] c14 N72-17329

SPACO, INC., HUNTSVILLE, ALA.
 Sight switch using an infrared source and sensor Patent
 [NASA-CASE-INP-03934] c09 N71-22985
 Method and device for detecting voids in low density material Patent
 [NASA-CASE-HFS-20044] c14 N71-28993

SPECTRA-PHYSICS, INC., MOUNTAIN VIEW, CALIF.
 Optically pumped resonance magnetometer for determining vectoral components in a spatial coordinate system Patent
 [NASA-CASE-XGS-04879] c14 N71-20428

SPECTROLAB, INC., SYLMAR, CALIF.
 Ultraviolet filter
 [NASA-CASE-INP-02340] c23 N69-24332
 Central spar and module joint Patent
 [NASA-CASE-INP-02341] c15 N71-21531
 Apparatus for applying cover slides
 [NASA-CASE-NPO-10575] c03 N72-25019

SPERRY GYROSCOPE CO., GREAT NECK, N. Y.
 Automatic gain control system
 [NASA-CASE-XMS-05307] c09 N69-24330

SPERRY RAND CORP., BLUE BELL, PA.
 Flipflop interrogator and bi-polar current driver Patent
 [NASA-CASE-XGS-03058] c10 N71-19547

SPERRY RAND CORP., HUNTSVILLE, ALA.
 Optical tracking mount Patent
 [NASA-CASE-HFS-14017] c14 N71-26627
 Collapsible antenna boom and transmission line Patent
 [NASA-CASE-HFS-20068] c07 N71-27191
 Device for handling printed circuit cards Patent
 [NASA-CASE-HFS-20453] c15 N71-29133
 Frequency division multiplex technique
 [NASA-CASE-KSC-10521] c07 N73-20176
 Device for configuring multiple leads
 [NASA-CASE-HFS-22133-1] c33 N74-26977
 System for enhancing tool-exchange capabilities of a portable wrench
 [NASA-CASE-HFS-22283-1] c37 N75-33395
 Remotely operable articulated manipulator
 [NASA-CASE-HFS-22707-1] c37 N76-15457
 Photovoltaic cell array
 [NASA-CASE-HFS-22458-1] c44 N77-10635
 Notch filter
 [NASA-CASE-HFS-23303-1] c32 N77-18307
 FM/CW radar system
 [NASA-CASE-HFS-22234-1] c32 N79-10264
 Anastigmatic three-mirror telescope
 [NASA-CASE-HFS-23675-1] c89 N79-10969

SPERRY RAND CORP., PHOENIX, ARIZ.
 Isolation coupling arrangement for a torque measuring system
 [NASA-CASE-XLA-04897] c15 N72-22482

STANFORD RESEARCH INST., MENLO PARK, CALIF.
 Automatic fault correction system for parallel signal channels Patent
 [NASA-CASE-INP-03263] c09 N71-18843
 Mercury capillary interrupter Patent
 [NASA-CASE-INP-02251] c12 N71-20896
 Magnetic power switch Patent
 [NASA-CASE-NPO-10242] c09 N71-24803
 Procedure and apparatus for determination of water in nitrogen tetroxide
 [NASA-CASE-NPO-10234] c06 N72-17094

STANFORD UNIV., CALIF.
 Active RC networks
 [NASA-CASE-ARC-10042-2] c10 N72-11256
 Multiloop RC active filter apparatus having low parameter sensitivity with low amplifier gain
 [NASA-CASE-ARC-10192] c09 N72-21245
 Spacecraft attitude control method and apparatus
 [NASA-CASE-HQN-10439] c21 N72-21624
 Laser system with an antiresonant optical ring
 [NASA-CASE-HQN-10844-1] c36 N75-19653
 Traveling wave solid state amplifier utilizing a semiconductor with negative differential mobility
 [NASA-CASE-HQN-10069] c33 N75-27251
 An improved controller arm for a remotely related slave arm
 [NASA-CASE-ARC-11052-1] c54 N77-30751
 Fibrous refractory composite insulation
 [NASA-CASE-ARC-11169-1] c24 N78-32189
 Reaction cured glass and glass coatings
 [NASA-CASE-ARC-11051-1] c27 N78-32260

STANFORD UNIV., PALO ALTO, CALIF.
 RC networks and amplifiers employing the same
 [NASA-CASE-XAC-05462-2] c10 N72-17171

STATE UNIV. OF IOWA, IOWA CITY.
 Mixture separation cell Patent
 [NASA-CASE-XMS-02952] c18 N71-20742

SYLVANIA ELECTRONIC SYSTEMS-CENTRAL, WILLIAMSVILLE, N. Y.
 Acquisition and tracking system for optical radar
 [NASA-CASE-HFS-20125] c16 N72-13437
 altitude sensing device
 [NASA-CASE-XMS-01994-1] c14 N72-17326

T
 TAAG DESIGNS, INC., COLLEGE PARK, MD.
 Recovery of radiation damaged solar cells through thermal annealing
 [NASA-CASE-XGS-04047-2] c03 N72-11062
 Phototropic composition of matter
 [NASA-CASE-XGS-03736] c14 N72-22443

TAPT BROADCASTING CORP., HOUSTON, TEX.
 Television noise reduction device
 [NASA-CASE-MSC-12607-1] c32 N75-21485

TALLADEGA COLL., ALA.
 Synthesis of multifunction triaryltrifluoroethanes
 [NASA-CASE-ARC-11097-1] c23 N78-22154
 Synthesis of multifunction triaryltrifluoroethanes
 [NASA-CASE-ARC-11097-2] c23 N78-22155

TANARACK SCIENTIFIC CO., INC.,

SOURCE INDEX

TANARACK SCIENTIFIC CO., INC., ORANGE, CALIF.
 Detector absorptivity measuring method and apparatus
 [NASA-CASE-LAR-10907-1] c35 N76-29551

TECHNICOLOR, INC., PARANUS, N.J.
 Automatic lightning detection and photographic system
 [NASA-CASE-KSC-10728-1] c14 N73-32319

TECHNIDYNE, INC., WEST CHESTER, PA.
 Methods and apparatus employing vibratory energy for wrenching Patent
 [NASA-CASE-MPS-20586] c15 N71-17686

TECHNION RESEARCH AND DEVELOPMENT FOUNDATION LTD., HAIFA (ISRAEL).
 Self-stabilizing radial face seal
 [NASA-CASE-LEW-12991-1] c37 N79-12445

TECHNOLOGY, INC., HOUSTON, TEX.
 Apparatus and method for processing Korotkov sounds
 [NASA-CASE-MSC-13999-1] c52 N74-26626

TECHNOLOGY, INC., SAN ANTONIO, TEX.
 Contourograph system for monitoring electrocardiograms
 [NASA-CASE-MSC-13407-1] c10 N72-20225

Modification of the physical properties of freeze-dried rice
 [NASA-CASE-MSC-13540-1] c05 N72-33096

TELETYPE BROWN ENGINEERING, HUNTSVILLE, ALA.
 Self-recording portable soil penetrometer
 [NASA-CASE-MPS-20774] c14 N73-19420

TEMPLE UNIV. RESEARCH INST., PHILADELPHIA, PA.
 Barium release system
 [NASA-CASE-LAR-10670-1] c06 N73-30097

Rocket having barium release system to create ion clouds in the upper atmosphere
 [NASA-CASE-LAR-10670-2] c15 N74-27360

TEXAS A&M UNIV., COLLEGE STATION.
 Apparatus for use in examining the lattice of a semiconductor wafer by X-ray diffraction
 [NASA-CASE-MPS-23315-1] c76 N78-24950

TEXAS INSTRUMENTS, INC., DALLAS.
 Integrated circuit including field effect transistor and cermet resistor
 [NASA-CASE-GSC-10835-1] c09 N72-33205

Apparatus for measuring semiconductor device resistance
 [NASA-CASE-NPO-14424-1] c33 N78-28340

TEXAS TECHNOLOGICAL UNIV., LUBBOCK.
 Insulated electrocardiographic electrodes
 [NASA-CASE-MSC-14339-1] c05 N75-24716

THIOLKOL CHEMICAL CORP., BRIGHAM CITY, UTAH.
 Recovery of aluminum and binder from composite propellants
 [NASA-CASE-NPO-14110-1] c28 N79-10225

THIOLKOL CHEMICAL CORP., BRISTOL, PA.
 Casting propellant in rocket engine
 [NASA-CASE-LAR-11995-1] c28 N77-10213

THIOLKOL CORP., BRIGHAM CITY, UTAH.
 Process for the leaching of AP from propellant
 [NASA-CASE-NPO-14109-1] c28 N79-10227

THOMPSON RAO WOODBRIDGE, INC., CLEVELAND, OHIO.
 Electromagnetic radiation energy arrangement
 [NASA-CASE-WOO-00428-1] c32 N79-19186

TISDALE (HENRY P., SR.), OAKHURST, N. J.
 A velocity vector control system augmented with direct lift control
 [NASA-CASE-LAR-12268-1] c08 N79-20136

TRANS-SONICS, INC., LEXINGTON, MASS.
 Capacitive tank gaging apparatus being independent of liquid distribution
 [NASA-CASE-MPS-21629] c14 N72-22442

TRIDENT ENGINEERING ASSOCIATES, INC., ANNAPOLIS, MD.
 Spectroscope equipment using a slender cylindrical reflector as a substitute for a slit Patent
 [NASA-CASE-IGS-08269] c23 N71-26206

TRW EQUIPMENT LABS., CLEVELAND, OHIO.
 Pulsed energy power system Patent
 [NASA-CASE-MSC-13112] c03 N71-11057

TRW, INC., REDONDO BEACH, CALIF.
 Method of and device for determining the characteristics and flux distribution of micrometeorites
 [NASA-CASE-NPO-12127-1] c91 N74-13130

Reinforced structural plastics
 [NASA-CASE-LEW-10199-1] c27 N74-23125

Capillary flow weld-bonding
 [NASA-CASE-LAR-11726-1] c37 N76-27568

Ruler for making navigational computations
 [NASA-CASE-XNP-01458] c04 N78-17031

Particle parameter analyzing system
 [NASA-CASE-XLE-06094] c33 N78-17293

Temperature compensated current source
 [NASA-CASE-MSC-11235] c33 N78-17294

Shunt regulation electric power system
 [NASA-CASE-GSC-10135] c33 N78-17296

Heat pipe with dual working fluids
 [NASA-CASE-ARC-10198] c34 N78-17336

Multi-chamber controllable heat pipe
 [NASA-CASE-ARC-10199] c34 N78-17337

Microbalance
 [NASA-CASE-MSC-11242] c35 N78-17358

Gas ion laser construction for electrically isolating the pressure gauge thereof
 [NASA-CASE-MPS-22597] c36 N78-17366

Wobble gear drive mechanism
 [NASA-CASE-WOO-00625] c37 N78-17385

Apparatus for handling micron size range particulate material
 [NASA-CASE-NPO-10151] c37 N78-17386

Solar cell module assembly jig
 [NASA-CASE-XGS-00829-1] c44 N79-19447

TRW SYSTEMS, REDONDO BEACH, CALIF.
 Electromechanical actuator
 [NASA-CASE-XNP-05975] c15 N69-23185

Control valve and co-axial variable injector Patent
 [NASA-CASE-XNP-09702] c15 N71-17654

Multiple orifice throttle valve Patent
 [NASA-CASE-XNP-09698] c15 N71-18580

Semitoroidal diaphragm cavitating valve Patent
 [NASA-CASE-XNP-09704] c12 N71-18615

Electrohydrodynamic control valve Patent
 [NASA-CASE-NPO-10416] c12 N71-27332

Gas ion laser construction for electrically isolating the pressure gauge thereof
 [NASA-CASE-MPS-22517-1] c36 N79-21333

TRW SYSTEMS GROUP, REDONDO BEACH, CALIF.
 Ablative resin Patent
 [NASA-CASE-XLE-05913] c33 N71-14032

Passive caging mechanism Patent
 [NASA-CASE-GSC-10306-1] c15 N71-24694

Multiple varactor frequency doubler Patent
 [NASA-CASE-XMF-04958-1] c10 N71-26414

Booster tank system Patent
 [NASA-CASE-MSC-12390] c27 N71-29155

Resonant infrasonic gauging apparatus
 [NASA-CASE-MSC-11847-1] c14 N72-11363

Wide range analog-to-digital converter with a variable gain amplifier
 [NASA-CASE-NPO-11018] c08 N72-21200

System for preconditioning a combustible vapor
 [NASA-CASE-NPO-12072] c28 N72-22772

Fail-safe multiple transformer circuit configuration
 [NASA-CASE-NPO-11078] c09 N72-25262

Digital control and information system
 [NASA-CASE-NPO-11016] c08 N72-31226

Ultrasonically bonded valve assembly
 [NASA-CASE-NPO-13360-1] c37 N75-25185

Cosmic dust analyzer
 [NASA-CASE-MSC-13802-2] c35 N76-15431

Weld-bonded titanium structures
 [NASA-CASE-LAR-11549-1] c37 N77-11397

Flat-plate heat pipe
 [NASA-CASE-GSC-11998-1] c34 N77-32413

Spatial filter for Q-switched lasers
 [NASA-CASE-LEW-12164-1] c36 N77-32478

Digital numerically controlled oscillator
 [NASA-CASE-MSC-16747-1] c33 N79-17138

TYCO LABS., INC., WALTHAM, MASS.
 Bonding thermoelectric elements to nonmagnetic refractory metal electrodes
 [NASA-CASE-IGS-04554] c15 N69-39786

Segmenting lead telluride-silicon germanium thermoelements Patent
 [NASA-CASE-IGS-05718] c26 N71-16037

Electrocatalyst for oxygen reduction
 [NASA-CASE-NQN-10537-1] c06 N72-10138

U

ULTRASYSTEMS, INC., IRVINE, CALIF.
 Heat resistant polymers of oxidized styrylphosphine
 [NASA-CASE-MSC-14903-2] c27 N78-25216

SOURCE INDEX

WESTINGHOUSE ELECTRIC CORP.,

- Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-3] c27 N78-25217
- Heat resistant polymers of oxidized styrylphosphine
[NASA-CASE-MSC-14903-1] c27 N78-32256
- UNIFIED SCIENCE ASSOCIATES, INC., PASADENA, CALIF.
Method of producing crystalline materials
[NASA-CASE-NPO-10440] c15 N72-21466
- UNION CARBIDE CORP., NEW YORK.
Laser apparatus for removing material from rotating objects Patent
[NASA-CASE-MFS-11279] c16 N71-20400
- UNITED AIRCRAFT CORP., EAST HARTFORD, CONN.
Supporting and protecting device Patent
[NASA-CASE-XMF-00580] c11 N70-35383
- Spherical tank gauge Patent
[NASA-CASE-XMS-06236] c14 N71-21007
- Omnidirectional joint Patent
[NASA-CASE-XMS-09635] c05 N71-24623
- Foreshortened convolute section for a pressurized suit Patent
[NASA-CASE-XMS-09637-1] c05 N71-24730
- Tertiary flow injection thrust vectoring system Patent
[NASA-CASE-MFS-20831] c28 N71-29153
- Restraint torso for a pressurized suit
[NASA-CASE-MSC-12397-1] c05 N72-25119
- Transformer regulated self-stabilizing chopper
[NASA-CASE-XGS-09186] c33 N78-17295
- Restraining mechanism
[NASA-CASE-MSC-13054] c54 N78-17677
- Helmet latching and attaching ring
[NASA-CASE-XMS-04670] c54 N78-17678
- Protective garment ventilation system
[NASA-CASE-XMS-04928] c54 N78-17679
- Helmet feedport
[NASA-CASE-XMS-09653] c54 N78-17680
- Emergency space-suit helmet
[NASA-CASE-MSC-10954-1] c54 N78-18761
- Protective garment ventilation system
[NASA-CASE-XMS-04928-1] c54 N79-21765
- Emergency space-suit helmet
[NASA-CASE-XMS-04673-1] c54 N79-21766
- UNITED AIRCRAFT CORP., STRATFORD, CONN.
Bonded joint and method
[NASA-CASE-LAR-10900-1] c37 N74-23064
- UNITED AIRCRAFT CORP., SUNNYVALE, CALIF.
Method and tool for machining a transverse slot about a bore
[NASA-CASE-LAR-11855-1] c31 N79-11249
- UNITED AIRCRAFT CORP., WEST PALM BEACH, FLA.
Inherent redundancy electric heater
[NASA-CASE-MFS-21462-1] c33 N74-14935
- UNITED AIRCRAFT CORP., WINDSOR LOCKS, CONN.
Water separating system Patent
[NASA-CASE-XMS-13052] c14 N71-20427
- Method of forming a root cord restrained convolute section
[NASA-CASE-MSC-12398] c05 N72-20098
- UNITED STATES RADION CORP., PARSIPPANY, N. J.
Method for applying photographic resists to otherwise incompatible substrates
[NASA-CASE-MSC-18107-1] c35 N79-19319
- UNITED TECHNOLOGIES CORP., EAST HARTFORD, CONN.
Method of making a rocket nozzle
[NASA-CASE-XMF-06884-1] c20 N79-21123
- Fluid thrust control system
[NASA-CASE-XMF-05964-1] c20 N79-21124
- Rocket injector head
[NASA-CASE-XMF-04592-1] c20 N79-21125
- UNITED TECHNOLOGIES CORP., WINDSOR LOCKS, CONN.
Cam-operated pitch-change apparatus
[NASA-CASE-LEW-13050-1] c07 N79-14095
- UNITED TECHNOLOGY CENTER, SUNNYVALE, CALIF.
Solid propellant liner Patent
[NASA-CASE-XNP-09744] c27 N71-16392
- V
VAPOR CORP., CHICAGO, ILL.
Method and apparatus for controllably heating fluid Patent
[NASA-CASE-XMF-04237] c33 N71-16278
- VARIAN ASSOCIATES, PALO ALTO, CALIF.
High power-high voltage waterload Patent
[NASA-CASE-XNP-05381] c09 N71-20842
- III-V photocathode with nitrogen doping for increased quantum efficiency
[NASA-CASE-NPO-12134-1] c33 N76-31409
- VIRGINIA POLYTECHNIC INST. AND STATE UNIV., BLACKSBURG.
Logarithmic circuit with wide dynamic range
[NASA-CASE-GSC-12145-1] c33 N78-32339
- VIRGINIA UNIV., CHARLOTTESVILLE.
Depositing semiconductor films utilizing a thermal gradient
[NASA-CASE-XKS-04614] c15 N69-21460
- Active microwave irises and windows
[NASA-CASE-LAR-10513-1] c07 N72-25170
- Thin film microwave iris
[NASA-CASE-LAR-10511-1] c09 N72-29172
- Apparatus for measuring a sorbate dispersed in a fluid stream
[NASA-CASE-ARC-10896-1] c35 N78-19465
- VIVONEX CORP., MOUNTAIN VIEW, CALIF.
Amino acid analysis
[NASA-CASE-NPO-12130-1] c25 N75-14844
- W
WEBER AIRCRAFT CORP., BURBANK, CALIF.
Articulated multiple couch assembly Patent
[NASA-CASE-MSC-11253] c05 N71-12343
- Device for separating occupant from an ejection seat Patent
[NASA-CASE-XMS-04625] c05 N71-20718
- Collapsible Apollo couch
[NASA-CASE-MSC-13140] c05 N72-11085
- WESTINGHOUSE ELECTRIC CORP., BALTIMORE, MD.
Broadband choke for antenna structure
[NASA-CASE-XMS-05303] c07 N69-27462
- Electronic background suppression method and apparatus for a field scanning sensor
[NASA-CASE-XGS-05211] c07 N69-39980
- Solid-state current transformer
[NASA-CASE-MFS-22560-1] c33 N77-14335
- Time delay and integration detectors using charge transfer devices
[NASA-CASE-GSC-12324-1] c33 N79-13262
- WESTINGHOUSE ELECTRIC CORP., HUNTSVILLE, ALA.
Solid state television camera system Patent
[NASA-CASE-XMF-06092] c07 N71-24612
- Phototransistor
[NASA-CASE-MFS-20407] c09 N73-19235
- WESTINGHOUSE ELECTRIC CORP., LIMA, OHIO.
Transistor drive regulator Patent
[NASA-CASE-LEW-10233] c10 N71-27126
- WESTINGHOUSE ELECTRIC CORP., PITTSBURGH, PA.
Linear sawtooth voltage-wave generator employing transistor timing circuit having capacitor-zener diode combination feedback Patent
[NASA-CASE-XMS-01315] c09 N70-41675
- Thermal conductive connection and method of making same Patent
[NASA-CASE-XMS-02087] c09 N70-41717
- Gas cooled high temperature thermocouple Patent
[NASA-CASE-XLE-09475-1] c33 N71-15568
- High resolution developing of photosensitive resists Patent
[NASA-CASE-XGS-04993] c14 N71-17574
- Regulated power supply Patent
[NASA-CASE-XMS-01991] c09 N71-21449
- Pulse modulator providing fast rise and fall times Patent
[NASA-CASE-XMS-04919] c09 N71-23270
- Extended area semiconductor radiation detectors and a novel readout arrangement Patent
[NASA-CASE-XGS-03230] c14 N71-23401
- Frequency shift keying apparatus Patent
[NASA-CASE-XGS-01537] c07 N71-23405
- Phase locked phase modulator including a voltage controlled oscillator Patent
[NASA-CASE-XNP-05382] c10 N71-23544
- Bearing and gimbal lock mechanism and spiral flex lead module Patent
[NASA-CASE-GSC-10556-1] c31 N71-26537
- Multiple slope sweep generator Patent
[NASA-CASE-XMS-03542] c09 N71-28926
- Self-adjusting multisegment, deployable, natural circulation radiator Patent
[NASA-CASE-XHQ-03673] c33 N71-29046
- Thermally cascaded thermoelectric generator
[NASA-CASE-NPO-10753] c03 N72-26031
- Phototransistor imaging system
[NASA-CASE-MFS-20809] c23 N73-13660

Demodulator for carrier transducers
[NASA-CASE-NUC-10107-1] c33 N74-17930

Heat transfer device
[NASA-CASE-WFO-11120-1] c34 N74-18552

Amplitude steered array
[NASA-CASE-GSC-11446-1] c33 N74-20860

Glass-to-metal seals comprising relatively high expansion metals
[NASA-CASE-LEW-10698-1] c37 N74-21063

Millimeter wave pumped parametric amplifier
[NASA-CASE-GSC-11617-1] c33 N74-32660

Method of forming a wick for a heat pipe
[NASA-CASE-WFO-13391-1] c34 N76-27515

Magnifying image intensifier
[NASA-CASE-GSC-12010-1] c74 N78-18905

WESTINGHOUSE ELECTRIC CORP., TRAFFORD, PA.
A sodium storage and injection system
[NASA-CASE-WFO-14384-1] c25 N78-22187

WESTON INSTRUMENTS, INC., COLLEGE PARK, MD.
Electronically resettable fuse Patent
[NASA-CASE-XGS-11177] c09 N71-27001

WHIRLPOOL CORP., ST. JOSEPH, ICH.
Relief container
[NASA-CASE-IHS-06761] c05 N69-23192

Fluid sample collector Patent
[NASA-CASE-IHS-06767-1] c14 N71-20435

WHITTAKER CORP., LOS ANGELES, CALIF.
Polyurethanes of fluorine containing polycarbonates
[NASA-CASE-HFS-10512] c06 N73-30099

Polyurethanes from fluoralkyl propyleneglycol polyethers
[NASA-CASE-HFS-10506] c06 N73-30100

Fluorohydroxy ethers
[NASA-CASE-HFS-10507] c06 N73-30101

Highly fluorinated polymers
[NASA-CASE-HFS-11492] c06 N73-30102

Fluorine containing polyurethane
[NASA-CASE-HFS-10509] c06 N73-30103

Fluorine-containing polyformals
[NASA-CASE-IHF-06900-1] c27 N79-21191

WHITTAKER CORP., SAN DIEGO, CALIF.
Reinforced polyquinoxaline gasket and method of preparing the same
[NASA-CASE-HFS-21364-1] c37 N74-18126

Polymeric foams from cross-linkable poly-n-arylenebenzimidazoles
[NASA-CASE-ARC-11008-1] c27 N78-31232

WISCONSIN UNIV., MADISON.
Coaxial anode wire for gas radiation counters
[NASA-CASE-GSC-11492-1] c35 N74-26949

Method and system for in vivo measurement of bone tissue using a two level energy source
[NASA-CASE-HSC-14276-1] c52 N77-14737

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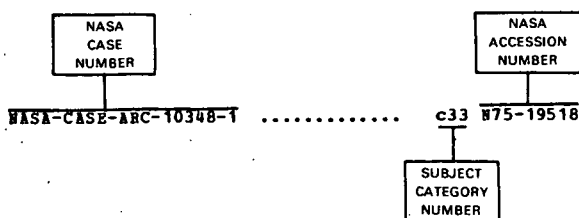
YOUNGSTOWN STATE UNIV., OHIO.
Instrumentation for measurement of aircraft noise and sonic boom
[NASA-CASE-LAR-11173-1] c35 N75-19614

NASA PATENT ABSTRACTS BIBLIOGRAPHY

JULY 1979

Section 2

Typical Number Index Listing



Listings in this index are arranged alphanumerically by "patent" number. The subject category number indicates the category in Section 1 (Abstracts) in which the citation is located. The NASA accession number denotes the number by which the citation is identified within the subject category.

JPL-CASE-13756	c35 N76-14434
NASA-CASE-ARC-10003-1	c09 N71-25866
NASA-CASE-ARC-10009-1	c15 N71-17822
NASA-CASE-ARC-10017-1	c14 N72-29464
NASA-CASE-ARC-10020	c10 N72-17172
NASA-CASE-ARC-10030	c09 N71-12521
NASA-CASE-ARC-10042-2	c10 N72-11256
NASA-CASE-ARC-10043-1	c05 N71-11193
NASA-CASE-ARC-10050	c03 N71-33409
NASA-CASE-ARC-10097-2	c07 N73-25160
NASA-CASE-ARC-10098-1	c06 N71-24739
NASA-CASE-ARC-10099-1	c18 N71-15469
NASA-CASE-ARC-10100-1	c05 N71-24738
NASA-CASE-ARC-10101-1	c09 N71-33109
NASA-CASE-ARC-10105	c09 N72-17153
NASA-CASE-ARC-10106-1	c28 N72-22769
NASA-CASE-ARC-10131-1	c15 N71-27754
NASA-CASE-ARC-10132-1	c09 N71-24597
NASA-CASE-ARC-10134	c30 N72-17873
NASA-CASE-ARC-10136-1	c09 N72-22202
NASA-CASE-ARC-10137-1	c09 N71-28468
NASA-CASE-ARC-10138-1	c14 N72-24477
NASA-CASE-ARC-10140-1	c15 N71-17653
NASA-CASE-ARC-10153	c05 N71-28619
NASA-CASE-ARC-10154-1	c14 N72-22440
NASA-CASE-ARC-10160-1	c23 N72-27728
NASA-CASE-ARC-10176-1	c15 N72-21464
NASA-CASE-ARC-10178-1	c09 N72-17152
NASA-CASE-ARC-10179-1	c21 N72-22619
NASA-CASE-ARC-10180-1	c28 N72-20767
NASA-CASE-ARC-10180-1	c27 N74-12814
NASA-CASE-ARC-10192	c09 N72-21245
NASA-CASE-ARC-10194-1	c23 N73-20741
NASA-CASE-ARC-10196-1	c18 N73-13562
NASA-CASE-ARC-10197-1	c33 N74-17929
NASA-CASE-ARC-10198	c34 N78-17336
NASA-CASE-ARC-10199	c34 N78-17337
NASA-CASE-ARC-10263-1	c14 N72-22438
NASA-CASE-ARC-10264-1	c09 N73-20231
NASA-CASE-ARC-10265-1	c10 N72-28240
NASA-CASE-ARC-10266-1	c33 N75-29318
NASA-CASE-ARC-10269-1	c10 N72-16172
NASA-CASE-ARC-10275-1	c05 N72-22092
NASA-CASE-ARC-10278-1	c14 N73-25463
NASA-CASE-ARC-10302-1	c51 N74-15778
NASA-CASE-ARC-10304-1	c18 N73-26572
NASA-CASE-ARC-10304-2	c27 N74-27037
NASA-CASE-ARC-10308-1	c06 N72-31141
NASA-CASE-ARC-10322-1	c35 N76-18403
NASA-CASE-ARC-10325	c06 N72-25147
NASA-CASE-ARC-10329-1	c05 N73-26072
NASA-CASE-ARC-10329-2	c52 N76-30793
NASA-CASE-ARC-10330-1	c09 N73-32112
NASA-CASE-ARC-10344-1	c14 N72-21433
NASA-CASE-ARC-10344-2	c35 N75-26334
NASA-CASE-ARC-10345-1	c15 N73-12488

NASA-CASE-ARC-10348-1	c33 N75-19518
NASA-CASE-ARC-10362-1	c14 N73-32326
NASA-CASE-ARC-10364-2	c33 N75-25041
NASA-CASE-ARC-10364-3	c33 N75-19520
NASA-CASE-ARC-10370-1	c36 N75-31426
NASA-CASE-ARC-10441-1	c35 N74-15126
NASA-CASE-ARC-10442-1	c35 N74-15093
NASA-CASE-ARC-10443-1	c14 N73-20477
NASA-CASE-ARC-10444-1	c16 N73-33397
NASA-CASE-ARC-10445-1	c31 N76-31365
NASA-CASE-ARC-10447-1	c52 N74-22771
NASA-CASE-ARC-10448-2	c74 N75-12732
NASA-CASE-ARC-10448-3	c35 N77-14408
NASA-CASE-ARC-10456-1	c05 N75-12930
NASA-CASE-ARC-10461-1	c44 N74-33379
NASA-CASE-ARC-10462-1	c37 N74-27901
NASA-CASE-ARC-10463-1	c09 N73-32111
NASA-CASE-ARC-10464-1	c27 N74-12812
NASA-CASE-ARC-10466-1	c60 N75-13539
NASA-CASE-ARC-10467-1	c09 N73-14214
NASA-CASE-ARC-10468-1	c14 N73-33361
NASA-CASE-ARC-10469-1	c25 N75-12086
NASA-CASE-ARC-10470-1	c02 N73-26005
NASA-CASE-ARC-10470-3	c05 N76-29217
NASA-CASE-ARC-10516-1	c70 N74-21300
NASA-CASE-ARC-10519-2	c05 N75-25915
NASA-CASE-ARC-10583-1	c52 N76-29894
NASA-CASE-ARC-10592-1	c27 N74-21156
NASA-CASE-ARC-10592-2	c27 N76-32315
NASA-CASE-ARC-10593-1	c33 N74-27682
NASA-CASE-ARC-10596-1	c33 N74-21851
NASA-CASE-ARC-10597-1	c52 N74-20726
NASA-CASE-ARC-10598-1	c75 N74-30156
NASA-CASE-ARC-10599-1	c05 N73-26071
NASA-CASE-ARC-10631-1	c74 N76-20958
NASA-CASE-ARC-10633-1	c25 N74-26947
NASA-CASE-ARC-10637-1	c35 N75-16783
NASA-CASE-ARC-10639-1	c35 N78-13400
NASA-CASE-ARC-10642-1	c36 N76-14447
NASA-CASE-ARC-10643-1	c25 N75-12087
NASA-CASE-ARC-10643-2	c51 N75-13506
NASA-CASE-ARC-10710-1	c09 N75-12969
NASA-CASE-ARC-10711-2	c33 N76-21390
NASA-CASE-ARC-10712-1	c07 N74-33218
NASA-CASE-ARC-10714-1	c27 N76-15310
NASA-CASE-ARC-10716-1	c35 N77-20399
NASA-CASE-ARC-10721-1	c27 N76-22376
NASA-CASE-ARC-10722-1	c51 N75-25503
NASA-CASE-ARC-10753-1	c54 N75-27760
NASA-CASE-ARC-10754-1	c07 N75-24736
NASA-CASE-ARC-10755-2	c34 N76-27517
NASA-CASE-ARC-10756-1	c54 N77-32721
NASA-CASE-ARC-10760-1	c25 N76-22323
NASA-CASE-ARC-10761-1	c07 N77-18154
NASA-CASE-ARC-10802-1	c35 N75-30502
NASA-CASE-ARC-10806	c06 N74-27872
NASA-CASE-ARC-10806-1	c35 N75-29381
NASA-CASE-ARC-10807-1	c05 N77-17029
NASA-CASE-ARC-10808-1	c09 N76-24280
NASA-CASE-ARC-10810-1	c33 N76-19339
NASA-CASE-ARC-10812-1	c07 N76-18131
NASA-CASE-ARC-10813-1	c27 N76-16230
NASA-CASE-ARC-10814-2	c25 N77-31260
NASA-CASE-ARC-10816-1	c35 N76-28525
NASA-CASE-ARC-10820-1	c35 N78-19466
NASA-CASE-ARC-10849-1	c17 N76-29347
NASA-CASE-ARC-10855-1	c52 N77-10780
NASA-CASE-ARC-10892-2	c27 N79-14214
NASA-CASE-ARC-10896-1	c35 N78-19465
NASA-CASE-ARC-10897-1	c33 N77-31404
NASA-CASE-ARC-10898-1	c35 N77-18417
NASA-CASE-ARC-10899-1	c60 N77-19760
NASA-CASE-ARC-10900-1	c35 N77-24454
NASA-CASE-ARC-10903-1	c09 N78-18083
NASA-CASE-ARC-10905-1	c37 N77-13418
NASA-CASE-ARC-10907-1	c37 N75-32465
NASA-CASE-ARC-10911-1	c35 N77-20400
NASA-CASE-ARC-10912-1	c34 N77-19353
NASA-CASE-ARC-10913-1	c24 N78-15180
NASA-CASE-ARC-10915-2	c27 N79-18052

NUMBER INDEX

NASA-CASE-ARC-10915-3	c24	N77-24200	NASA-CASE-ERC-10098	c09	N71-28618
NASA-CASE-ARC-10916-1	c52	N78-10686	NASA-CASE-ERC-10100	c09	N71-33519
NASA-CASE-ARC-10917-1	c51	N78-27733	NASA-CASE-ERC-10108	c06	N72-21094
NASA-CASE-ARC-10932-1	c74	N76-22993	NASA-CASE-ERC-10112	c07	N72-21119
NASA-CASE-ARC-10970-1	c36	N77-25501	NASA-CASE-ERC-10113	c09	N71-27053
NASA-CASE-ARC-10971-1	c09	N76-26224	NASA-CASE-ERC-10119	c26	N72-21701
NASA-CASE-ARC-10978-1	c34	N77-27345	NASA-CASE-ERC-10120	c26	N69-33482
NASA-CASE-ARC-10975-1	c33	N79-15245	NASA-CASE-ERC-10125	c09	N71-24893
NASA-CASE-ARC-10976-1	c74	N77-22950	NASA-CASE-ERC-10138	c26	N71-14354
NASA-CASE-ARC-10979-1	c09	N77-19076	NASA-CASE-ERC-10139	c09	N72-17154
NASA-CASE-ARC-10980-1	c27	N77-18265	NASA-CASE-ERC-10150	c14	N71-28992
NASA-CASE-ARC-10981-1	c37	N78-27425	NASA-CASE-ERC-10151	c16	N71-29131
NASA-CASE-ARC-10984-1	c32	N77-24328	NASA-CASE-ERC-10174	c14	N72-25809
NASA-CASE-ARC-10985-1	c52	N79-10724	NASA-CASE-ERC-10178	c16	N71-24832
NASA-CASE-ARC-10990-1	c04	N77-12031	NASA-CASE-ERC-10179	c07	N72-20141
NASA-CASE-ARC-10991-1	c25	N78-14104	NASA-CASE-ERC-10180-1	c60	N74-20836
NASA-CASE-ARC-10992-1	c26	N78-32229	NASA-CASE-ERC-10187	c16	N69-31343
NASA-CASE-ARC-10994-1	c52	N76-33835	NASA-CASE-ERC-10208	c15	N70-10867
NASA-CASE-ARC-10994-2	c52	N77-15619	NASA-CASE-ERC-10214	c09	N72-31235
NASA-CASE-ARC-11007-1	c52	N77-14736	NASA-CASE-ERC-10222	c09	N72-22199
NASA-CASE-ARC-11008-1	c27	N78-31232	NASA-CASE-ERC-10224	c09	N72-25261
NASA-CASE-ARC-11031-1	c54	N78-22720	NASA-CASE-ERC-10224-2	c09	N73-27150
NASA-CASE-ARC-11035-1	c52	N79-18580	NASA-CASE-ERC-10226-1	c14	N73-16483
NASA-CASE-ARC-11036-1	c35	N78-32395	NASA-CASE-ERC-10248	c14	N72-17323
NASA-CASE-ARC-11039-1	c74	N78-32854	NASA-CASE-ERC-10267	c09	N72-23173
NASA-CASE-ARC-11040-1	c24	N79-16915	NASA-CASE-ERC-10268	c09	N72-25252
NASA-CASE-ARC-11040-2	c24	N78-27184	NASA-CASE-ERC-10275	c26	N72-25680
NASA-CASE-ARC-11042-1	c24	N78-14096	NASA-CASE-ERC-10276	c14	N73-26432
NASA-CASE-ARC-11043-1	c24	N78-27180	NASA-CASE-ERC-10283	c16	N72-25485
NASA-CASE-ARC-11045-1	c05	N79-17847	NASA-CASE-ERC-10285	c10	N73-16206
NASA-CASE-ARC-11046-1	c35	N78-14364	NASA-CASE-ERC-10292	c14	N72-25410
NASA-CASE-ARC-11051-1	c27	N78-32260	NASA-CASE-ERC-10307	c08	N72-21198
NASA-CASE-ARC-11052-1	c54	N77-30751	NASA-CASE-ERC-10324	c07	N72-25173
NASA-CASE-ARC-11053-1	c25	N79-10162	NASA-CASE-ERC-10325	c15	N72-25457
NASA-CASE-ARC-11057-1	c27	N78-31233	NASA-CASE-ERC-10338	c04	N72-33072
NASA-CASE-ARC-11058-1	c54	N78-31735	NASA-CASE-ERC-10339-1	c18	N73-30532
NASA-CASE-ARC-11058-2	c54	N78-18763	NASA-CASE-ERC-10350	c14	N73-20474
NASA-CASE-ARC-11059-1	c54	N78-32721	NASA-CASE-ERC-10363	c18	N72-25541
NASA-CASE-ARC-11091-1	c52	N79-11684	NASA-CASE-ERC-10364	c18	N72-25540
NASA-CASE-ARC-11097-1	c23	N78-22154	NASA-CASE-ERC-10365-1	c31	N73-32749
NASA-CASE-ARC-11097-2	c23	N78-22155	NASA-CASE-ERC-10392	c21	N73-14692
NASA-CASE-ARC-11100-1	c54	N78-31736	NASA-CASE-ERC-10403-1	c10	N73-26228
NASA-CASE-ARC-11101-1	c54	N78-17675	NASA-CASE-ERC-10412-1	c09	N73-12211
NASA-CASE-ARC-11104-1	c15	N78-13110	NASA-CASE-ERC-10419	c21	N72-21631
NASA-CASE-ARC-11106-1	c05	N77-31130	NASA-CASE-ERC-10419-1	c03	N75-30132
NASA-CASE-ARC-11107-1	c23	N78-22156	NASA-CASE-ERC-10439	c02	N73-19004
NASA-CASE-ARC-11110-1	c37	N78-32434	NASA-CASE-ERC-10468	c09	N72-20206
NASA-CASE-ARC-11114-1	c52	N78-33717	NASA-CASE-ERC-10552	c09	N71-12539
NASA-CASE-ARC-11117-1	c52	N79-15576	NASA-CASE-ERC-11020	c14	N71-26774
NASA-CASE-ARC-11118-1	c52	N78-11692			
NASA-CASE-ARC-11118-2	c52	N79-14755	NASA-CASE-FRC-10005	c15	N71-26145
NASA-CASE-ARC-11120-1	c52	N77-23743	NASA-CASE-FRC-10010	c10	N71-24862
NASA-CASE-ARC-11121-1	c25	N79-14169	NASA-CASE-FRC-10012	c14	N72-17329
NASA-CASE-ARC-11154-1	c27	N78-27275	NASA-CASE-FRC-10019	c15	N73-12487
NASA-CASE-ARC-11157-1	c31	N79-18087	NASA-CASE-FRC-10022	c12	N71-26546
NASA-CASE-ARC-11169-1	c24	N78-32189	NASA-CASE-FRC-10029	c09	N71-24618
NASA-CASE-ARC-11170-1	c27	N79-11215	NASA-CASE-FRC-10029-2	c05	N72-25121
NASA-CASE-ARC-11174-1	c24	N78-28178	NASA-CASE-FRC-10036	c09	N72-22200
			NASA-CASE-FRC-10038	c15	N72-20444
NASA-CASE-ERC-10001			NASA-CASE-FRC-10049-1	c04	N74-13820
NASA-CASE-ERC-10011	c23	N71-24868	NASA-CASE-FRC-10051-1	c35	N74-13129
NASA-CASE-ERC-10013	c07	N71-29065	NASA-CASE-FRC-10053	c14	N70-35587
NASA-CASE-ERC-10014	c09	N71-26678	NASA-CASE-FRC-10060-1	c14	N73-27379
NASA-CASE-ERC-10015-2	c14	N71-28863	NASA-CASE-FRC-10063	c01	N71-12217
NASA-CASE-ERC-10017	c10	N72-27246	NASA-CASE-FRC-10071-1	c32	N74-20813
NASA-CASE-ERC-10019	c16	N71-15567	NASA-CASE-FRC-10072-1	c33	N74-14939
NASA-CASE-ERC-10020	c16	N71-26154	NASA-CASE-FRC-10081-1	c37	N77-14477
NASA-CASE-ERC-10022	c15	N71-26635	NASA-CASE-FRC-10090-1	c33	N78-18308
NASA-CASE-ERC-10031	c12	N71-18603	NASA-CASE-FRC-10092-1	c05	N79-12061
NASA-CASE-ERC-10032	c10	N71-25900	NASA-CASE-FRC-10093-1	c35	N78-18393
NASA-CASE-ERC-10033	c14	N71-26672	NASA-CASE-FRC-10111-1	c37	N79-10419
NASA-CASE-ERC-10034	c15	N71-24896	NASA-CASE-FRC-10113-1	c09	N78-19166
NASA-CASE-ERC-10041	c08	N71-29138	NASA-CASE-FRC-11006-1	c99	N79-10995
NASA-CASE-ERC-10044-1	c14	N71-27090	NASA-CASE-FRC-11007-1	c02	N78-19055
NASA-CASE-ERC-10045	c15	N71-24910	NASA-CASE-FRC-11009-1	c06	N78-25088
NASA-CASE-ERC-10046	c10	N71-18722	NASA-CASE-FRC-11012-1	c33	N78-28339
NASA-CASE-ERC-10048	c09	N72-25251	NASA-CASE-FRC-11022-1	c09	N79-10069
NASA-CASE-ERC-10065	c09	N71-27364	NASA-CASE-FRC-11024-1	c02	N79-17797
NASA-CASE-ERC-10072	c09	N70-11148			
NASA-CASE-ERC-10073-1	c24	N74-19769	NASA-CASE-GSC-10007	c18	N71-16046
NASA-CASE-ERC-10075	c09	N71-24800	NASA-CASE-GSC-10021-1	c09	N71-24595
NASA-CASE-ERC-10075-2	c09	N72-22196	NASA-CASE-GSC-10022-1	c10	N71-25882
NASA-CASE-ERC-10081	c14	N72-28437	NASA-CASE-GSC-10041-1	c10	N71-19418
NASA-CASE-ERC-10087	c14	N71-27334	NASA-CASE-GSC-10062	c14	N71-15605
NASA-CASE-ERC-10087-2	c14	N72-31446	NASA-CASE-GSC-10064-1	c10	N72-22235
NASA-CASE-ERC-10088	c26	N71-25490	NASA-CASE-GSC-10065-1	c10	N71-27136
NASA-CASE-ERC-10089	c23	N72-17747	NASA-CASE-GSC-10072	c18	N71-18014
NASA-CASE-ERC-10090	c21	N71-24948	NASA-CASE-GSC-10082-1	c10	N72-20221
NASA-CASE-ERC-10097	c15	N71-28465	NASA-CASE-GSC-10083-1	c30	N71-16090

NUMBER INDEX

NASA-CASE-GSC-10087-1	c02	N71-19287	NASA-CASE-GSC-11188-2	c21	N73-19630
NASA-CASE-GSC-10087-2	c21	N71-13958	NASA-CASE-GSC-11188-3	c74	N74-20008
NASA-CASE-GSC-10087-3	c07	N72-12080	NASA-CASE-GSC-11205-1	c15	N73-25513
NASA-CASE-GSC-10087-4	c07	N73-20174	NASA-CASE-GSC-11211-1	c03	N72-25020
NASA-CASE-GSC-10097-1	c08	N71-27210	NASA-CASE-GSC-11214-1	c06	N73-13128
NASA-CASE-GSC-10114-1	c10	N71-27366	NASA-CASE-GSC-11215-1	c09	N73-28083
NASA-CASE-GSC-10118-1	c07	N71-24621	NASA-CASE-GSC-11222-1	c16	N73-32391
NASA-CASE-GSC-10131-1	c07	N71-24624	NASA-CASE-GSC-11239-1	c10	N73-25241
NASA-CASE-GSC-10135	c33	N78-17296	NASA-CASE-GSC-11262-1	c36	N74-21091
NASA-CASE-GSC-10185-1	c07	N72-12081	NASA-CASE-GSC-11291-1	c25	N72-33696
NASA-CASE-GSC-10186	c08	N71-33110	NASA-CASE-GSC-11296-1	c23	N73-30666
NASA-CASE-GSC-10188-1	c23	N71-24725	NASA-CASE-GSC-11302-1	c14	N73-13416
NASA-CASE-GSC-10216-1	c23	N71-26722	NASA-CASE-GSC-11304-1	c06	N72-21105
NASA-CASE-GSC-10218-1	c15	N72-21465	NASA-CASE-GSC-11340-1	c10	N72-33230
NASA-CASE-GSC-10220-1	c07	N71-27233	NASA-CASE-GSC-11353-1	c74	N74-21304
NASA-CASE-GSC-10221-1	c09	N72-23171	NASA-CASE-GSC-11358-1	c06	N73-26100
NASA-CASE-GSC-10225-1	c06	N73-27086	NASA-CASE-GSC-11367	c10	N71-26374
NASA-CASE-GSC-10299-1	c09	N71-24804	NASA-CASE-GSC-11367-1	c44	N74-19692
NASA-CASE-GSC-10303	c15	N72-22487	NASA-CASE-GSC-11368-1	c09	N73-32108
NASA-CASE-GSC-10306-1	c15	N71-24694	NASA-CASE-GSC-11394-1	c09	N73-32109
NASA-CASE-GSC-10344-1	c03	N72-27053	NASA-CASE-GSC-11425-1	c76	N74-20329
NASA-CASE-GSC-10361-1	c18	N72-23581	NASA-CASE-GSC-11425-2	c76	N75-25730
NASA-CASE-GSC-10366-1	c10	N71-18772	NASA-CASE-GSC-11428-1	c32	N74-20864
NASA-CASE-GSC-10373-1	c07	N71-19773	NASA-CASE-GSC-11434-1	c34	N74-27859
NASA-CASE-GSC-10376-1	c14	N71-27407	NASA-CASE-GSC-11444-1	c14	N73-28490
NASA-CASE-GSC-10390-1	c07	N72-11149	NASA-CASE-GSC-11445-1	c31	N74-27902
NASA-CASE-GSC-10413	c10	N71-26531	NASA-CASE-GSC-11446-1	c33	N74-20860
NASA-CASE-GSC-10441-1	c14	N71-27325	NASA-CASE-GSC-11479-1	c35	N74-28097
NASA-CASE-GSC-10452	c07	N71-12396	NASA-CASE-GSC-11487-1	c14	N73-30393
NASA-CASE-GSC-10487-1	c03	N71-24719	NASA-CASE-GSC-11492-1	c35	N74-26949
NASA-CASE-GSC-10503-1	c14	N72-20381	NASA-CASE-GSC-11513-1	c33	N74-20862
NASA-CASE-GSC-10514-1	c14	N72-20379	NASA-CASE-GSC-11514-1	c03	N72-24037
NASA-CASE-GSC-10518-1	c15	N72-22489	NASA-CASE-GSC-11531-1	c52	N74-27566
NASA-CASE-GSC-10553-1	c07	N71-19854	NASA-CASE-GSC-11533-1	c14	N73-13435
NASA-CASE-GSC-10554-1	c08	N71-29033	NASA-CASE-GSC-11551-1	c37	N76-18459
NASA-CASE-GSC-10555-1	c21	N71-27324	NASA-CASE-GSC-11553-1	c35	N74-15831
NASA-CASE-GSC-10556-1	c31	N71-26537	NASA-CASE-GSC-11560-1	c33	N74-20861
NASA-CASE-GSC-10557-1	c31	N71-26537	NASA-CASE-GSC-11569-1	c89	N74-30886
NASA-CASE-GSC-10564	c10	N71-29135	NASA-CASE-GSC-11571-1	c36	N77-25499
NASA-CASE-GSC-10565-1	c06	N72-25149	NASA-CASE-GSC-11577-1	c37	N75-15992
NASA-CASE-GSC-10566-1	c15	N72-18477	NASA-CASE-GSC-11577-3	c24	N76-19234
NASA-CASE-GSC-10590-1	c31	N73-14853	NASA-CASE-GSC-11582-1	c33	N75-19517
NASA-CASE-GSC-10607-1	c15	N72-20442	NASA-CASE-GSC-11600-1	c35	N74-21019
NASA-CASE-GSC-10614-1	c09	N72-11224	NASA-CASE-GSC-11602-1	c33	N74-21850
NASA-CASE-GSC-10640-1	c28	N72-18766	NASA-CASE-GSC-11617-1	c33	N74-32660
NASA-CASE-GSC-10656-1	c09	N72-25249	NASA-CASE-GSC-11619-1	c34	N75-12222
NASA-CASE-GSC-10667-1	c10	N71-33129	NASA-CASE-GSC-11620-1	c34	N74-23039
NASA-CASE-GSC-10668-1	c07	N71-28430	NASA-CASE-GSC-11623-1	c33	N75-25040
NASA-CASE-GSC-10669-1	c03	N72-20031	NASA-CASE-GSC-11690-1	c14	N73-28499
NASA-CASE-GSC-10695-1	c09	N72-25259	NASA-CASE-GSC-11743-1	c32	N75-24981
NASA-CASE-GSC-10700	c23	N71-30027	NASA-CASE-GSC-11744-1	c33	N75-26243
NASA-CASE-GSC-10709-1	c28	N71-25213	NASA-CASE-GSC-11746-1	c36	N75-19654
NASA-CASE-GSC-10710-1	c28	N71-27094	NASA-CASE-GSC-11752-1	c77	N75-20140
NASA-CASE-GSC-10735-1	c10	N71-26085	NASA-CASE-GSC-11760-1	c33	N75-19516
NASA-CASE-GSC-10780-1	c14	N72-16283	NASA-CASE-GSC-11762-1	c74	N76-30053
NASA-CASE-GSC-10786-1	c10	N72-28241	NASA-CASE-GSC-11783-1	c33	N75-19516
NASA-CASE-GSC-10791-1	c15	N73-14469	NASA-CASE-GSC-11786-1	c24	N76-24363
NASA-CASE-GSC-10814-1	c03	N73-20039	NASA-CASE-GSC-11789-1	c33	N77-14333
NASA-CASE-GSC-10835-1	c09	N72-33205	NASA-CASE-GSC-11824-1	c33	N77-26386
NASA-CASE-GSC-10878-1	c10	N72-22236	NASA-CASE-GSC-11829-1	c35	N75-27331
NASA-CASE-GSC-10879-1	c14	N72-25413	NASA-CASE-GSC-11839-1	c60	N77-14751
NASA-CASE-GSC-10880-1	c08	N72-11172	NASA-CASE-GSC-11839-2	c60	N78-10709
NASA-CASE-GSC-10890-1	c21	N73-30640	NASA-CASE-GSC-11839-3	c60	N77-32731
NASA-CASE-GSC-10891-1	c10	N71-26626	NASA-CASE-GSC-11844-1	c33	N75-19522
NASA-CASE-GSC-10903-1	c14	N73-12444	NASA-CASE-GSC-11849-1	c33	N76-16332
NASA-CASE-GSC-10913	c15	N72-22491	NASA-CASE-GSC-11862-1	c32	N76-18295
NASA-CASE-GSC-10945-1	c21	N72-31637	NASA-CASE-GSC-11868-1	c17	N76-22245
NASA-CASE-GSC-10949-1	c07	N71-28965	NASA-CASE-GSC-11877-1	c74	N76-18913
NASA-CASE-GSC-10975-1	c08	N73-13187	NASA-CASE-GSC-11883-1	c37	N77-19458
NASA-CASE-GSC-10984-1	c37	N75-26371	NASA-CASE-GSC-11883-2	c37	N78-31426
NASA-CASE-GSC-10990-1	c09	N73-26195	NASA-CASE-GSC-11889-1	c35	N76-16393
NASA-CASE-GSC-11013-1	c09	N73-19234	NASA-CASE-GSC-11892-1	c35	N76-15433
NASA-CASE-GSC-11018-1	c31	N73-30829	NASA-CASE-GSC-11893-1	c35	N76-31489
NASA-CASE-GSC-11046-1	c07	N73-28013	NASA-CASE-GSC-11895-1	c35	N76-15436
NASA-CASE-GSC-11063-1	c37	N77-27400	NASA-CASE-GSC-11898-1	c32	N77-30309
NASA-CASE-GSC-11074-1	c14	N73-28489	NASA-CASE-GSC-11902-1	c38	N77-17495
NASA-CASE-GSC-11077-1	c02	N73-13008	NASA-CASE-GSC-11909	c32	N74-20863
NASA-CASE-GSC-11079-1	c37	N75-18574	NASA-CASE-GSC-11917-2	c51	N76-29891
NASA-CASE-GSC-11092-2	c04	N73-27052	NASA-CASE-GSC-11924-1	c33	N76-27472
NASA-CASE-GSC-11095-1	c14	N72-10375	NASA-CASE-GSC-11925-1	c33	N76-18353
NASA-CASE-GSC-11126-1	c09	N72-25253	NASA-CASE-GSC-11960-1	c37	N77-14479
NASA-CASE-GSC-11127-1	c09	N75-24758	NASA-CASE-GSC-11963-1	c33	N77-10429
NASA-CASE-GSC-11133-1	c23	N72-11568	NASA-CASE-GSC-11968-1	c32	N76-15329
NASA-CASE-GSC-11139	c09	N71-27016	NASA-CASE-GSC-11974-1	c37	N77-19458
NASA-CASE-GSC-11149-1	c15	N73-30457	NASA-CASE-GSC-11975-1	c37	N77-19458
NASA-CASE-GSC-11163-1	c15	N73-32360	NASA-CASE-GSC-11976-1	c43	N78-10529
NASA-CASE-GSC-11169-2	c05	N73-32011	NASA-CASE-GSC-11978-1	c37	N77-17464
NASA-CASE-GSC-11182-1	c15	N75-13007	NASA-CASE-GSC-11989-1	c74	N77-28932
NASA-CASE-GSC-11188-1	c14	N73-32320	NASA-CASE-GSC-11998-1	c34	N77-32413

NUMBER INDEX

NASA-CASE-GSC-12010-1	c74 N78-18905	NASA-CASE-HQN-10792-1	c33 N74-11049
NASA-CASE-GSC-12017-1	c32 N77-30308	NASA-CASE-HQN-10832-1	c71 N74-21014
NASA-CASE-GSC-12018-1	c33 N77-14334	NASA-CASE-HQN-10841-1	c73 N78-19920
NASA-CASE-GSC-12022-1	c44 N76-28635	NASA-CASE-HQN-10844-1	c36 N75-19653
NASA-CASE-GSC-12022-2	c44 N78-24609	NASA-CASE-HQN-10862-1	c44 N76-29699
NASA-CASE-GSC-12023-1	c44 N76-28635	NASA-CASE-HQN-10876-1	c33 N76-27473
NASA-CASE-GSC-12030-1	c44 N78-24608	NASA-CASE-HQN-10880-1	c17 N78-17140
NASA-CASE-GSC-12032-2	c35 N76-19408	NASA-CASE-HQN-10888-1	c44 N79-14527
NASA-CASE-GSC-12039-1	c51 N77-22794		
NASA-CASE-GSC-12044-1	c60 N78-17691	NASA-CASE-KSC-10002	c10 N71-25865
NASA-CASE-GSC-12046-1	c52 N79-14750	NASA-CASE-KSC-10003	c10 N73-13235
NASA-CASE-GSC-12053-1	c32 N77-28346	NASA-CASE-KSC-10020	c10 N71-27338
NASA-CASE-GSC-12058-1	c74 N77-26942	NASA-CASE-KSC-10031	c15 N72-22486
NASA-CASE-GSC-12059-1	c35 N77-27366	NASA-CASE-KSC-10108	c14 N73-25461
NASA-CASE-GSC-12075-1	c32 N77-31350	NASA-CASE-KSC-10126	c11 N71-24985
NASA-CASE-GSC-12077-1	c35 N77-24455	NASA-CASE-KSC-10162	c09 N72-11225
NASA-CASE-GSC-12081-2	c52 N77-26796	NASA-CASE-KSC-10164	c07 N71-33108
NASA-CASE-GSC-12082-1	c54 N76-22914	NASA-CASE-KSC-10198	c11 N71-28629
NASA-CASE-GSC-12082-2	c52 N77-27694	NASA-CASE-KSC-10242	c15 N72-23497
NASA-CASE-GSC-12083-1	c73 N78-32848	NASA-CASE-KSC-10278	c05 N72-16015
NASA-CASE-GSC-12088-1	c74 N78-13874	NASA-CASE-KSC-10294	c14 N72-18411
NASA-CASE-GSC-12110-1	c27 N77-32308	NASA-CASE-KSC-10326	c08 N72-21197
NASA-CASE-GSC-12111-2	c60 N77-31800	NASA-CASE-KSC-10392	c07 N73-26117
NASA-CASE-GSC-12115-1	c62 N76-31946	NASA-CASE-KSC-10393	c09 N72-21247
NASA-CASE-GSC-12137-1	c33 N78-32338	NASA-CASE-KSC-10397	c08 N72-25206
NASA-CASE-GSC-12138-1	c33 N79-20314	NASA-CASE-KSC-10513	c15 N72-25453
NASA-CASE-GSC-12143-1	c35 N77-32456	NASA-CASE-KSC-10521	c07 N73-20176
NASA-CASE-GSC-12145-1	c33 N78-32339	NASA-CASE-KSC-10565	c09 N72-25250
NASA-CASE-GSC-12146-1	c33 N78-32340	NASA-CASE-KSC-10595	c08 N73-12176
NASA-CASE-GSC-12147-1	c35 N77-20410	NASA-CASE-KSC-10615	c15 N73-12486
NASA-CASE-GSC-12148-1	c32 N79-20296	NASA-CASE-KSC-10622-1	c31 N72-21893
NASA-CASE-GSC-12150-1	c32 N79-11265	NASA-CASE-KSC-10626	c14 N73-27378
NASA-CASE-GSC-12158-1	c51 N78-22585	NASA-CASE-KSC-10639	c15 N73-26472
NASA-CASE-GSC-12168-1	c31 N79-17029	NASA-CASE-KSC-10644	c09 N72-27227
NASA-CASE-GSC-12171-1	c33 N78-18313	NASA-CASE-KSC-10647-1	c10 N72-31273
NASA-CASE-GSC-12173-1	c51 N79-10694	NASA-CASE-KSC-10654-1	c07 N73-30115
NASA-CASE-GSC-12190-1	c33 N79-12321	NASA-CASE-KSC-10698	c07 N73-20175
NASA-CASE-GSC-12191-1	c54 N79-19688	NASA-CASE-KSC-10723-1	c37 N75-13265
NASA-CASE-GSC-12194-2	c20 N79-15151	NASA-CASE-KSC-10728-1	c14 N73-32319
NASA-CASE-GSC-12207-1	c24 N79-14156	NASA-CASE-KSC-10729-1	c09 N73-32110
NASA-CASE-GSC-12219-1	c43 N78-22436	NASA-CASE-KSC-10730-1	c14 N73-32318
NASA-CASE-GSC-12225-1	c74 N79-14891	NASA-CASE-KSC-10731-1	c33 N74-27862
NASA-CASE-GSC-12228-1	c33 N79-10338	NASA-CASE-KSC-10736-1	c33 N75-19521
NASA-CASE-GSC-12237-1	c36 N78-10445	NASA-CASE-KSC-10750-1	c35 N75-12270
NASA-CASE-GSC-12253-1	c34 N78-13380	NASA-CASE-KSC-10752-1	c15 N73-27407
NASA-CASE-GSC-12263-1	c74 N79-20857	NASA-CASE-KSC-10769-1	c33 N74-29556
NASA-CASE-GSC-12273-1	c18 N78-23141	NASA-CASE-KSC-10782-1	c33 N75-30431
NASA-CASE-GSC-12274-1	c37 N78-25428	NASA-CASE-KSC-10807-1	c33 N75-26246
NASA-CASE-GSC-12276-1	c37 N78-32429	NASA-CASE-KSC-10834-1	c33 N76-14371
NASA-CASE-GSC-12289-1	c37 N78-32435	NASA-CASE-KSC-10849-1	c52 N77-14738
NASA-CASE-GSC-12291-1	c31 N78-24386	NASA-CASE-KSC-10899-1	c33 N79-18193
NASA-CASE-GSC-12297-1	c37 N78-19515	NASA-CASE-KSC-11004-1	c54 N77-30749
NASA-CASE-GSC-12303-1	c27 N78-17217	NASA-CASE-KSC-11010-1	c74 N79-12890
NASA-CASE-GSC-12318-1	c37 N78-23434	NASA-CASE-KSC-11018-1	c33 N79-10337
NASA-CASE-GSC-12322-1	c37 N78-25429	NASA-CASE-KSC-11030-1	c52 N77-25772
NASA-CASE-GSC-12324-1	c33 N79-13262	NASA-CASE-KSC-11031-1	c33 N79-11315
NASA-CASE-GSC-12331-1	c37 N78-32436	NASA-CASE-KSC-11034-1	c44 N78-32542
NASA-CASE-GSC-12334-1	c36 N79-14362	NASA-CASE-KSC-11035-1	c35 N78-28411
NASA-CASE-GSC-12347-1	c33 N78-17297	NASA-CASE-KSC-11042-1	c02 N78-22026
NASA-CASE-GSC-12348-1	c74 N78-29902	NASA-CASE-KSC-11047-1	c74 N78-14889
NASA-CASE-GSC-12357-1	c74 N78-32857	NASA-CASE-KSC-11057-1	c33 N79-14305
NASA-CASE-GSC-12399-1	c33 N79-13261	NASA-CASE-KSC-11064-1	c34 N78-22328
NASA-CASE-GSC-12404-1	c33 N79-17135	NASA-CASE-KSC-11069-1	c54 N78-22721
NASA-CASE-GSC-12411-1	c33 N79-14308		
NASA-CASE-GSC-12429-1	c37 N79-19364		
		NASA-CASE-LAR-02743	c14 N73-32324
NASA-CASE-HQN-00936	c31 N71-29050	NASA-CASE-LAR-10000	c14 N73-30394
NASA-CASE-HQN-00937	c07 N71-28979	NASA-CASE-LAR-10007-1	c05 N71-11195
NASA-CASE-HQN-00938	c33 N71-29053	NASA-CASE-LAR-10031	c15 N72-22484
NASA-CASE-HQN-10037-1	c14 N73-27376	NASA-CASE-LAR-10056	c05 N71-12351
NASA-CASE-HQN-10069	c33 N75-27251	NASA-CASE-LAR-10061-1	c15 N72-31483
NASA-CASE-HQN-10364	c06 N71-27363	NASA-CASE-LAR-10073-1	c37 N76-28575
NASA-CASE-HQN-10439	c21 N72-21624	NASA-CASE-LAR-10076-1	c05 N73-20137
NASA-CASE-HQN-10462	c25 N75-29192	NASA-CASE-LAR-10083-1	c15 N71-27006
NASA-CASE-HQN-10537-1	c06 N72-10138	NASA-CASE-LAR-10089-1	c34 N74-23066
NASA-CASE-HQN-10541-1	c07 N71-26291	NASA-CASE-LAR-10098	c32 N71-26681
NASA-CASE-HQN-10541-2	c15 N71-27135	NASA-CASE-LAR-10102-1	c05 N72-23085
NASA-CASE-HQN-10541-3	c23 N72-23695	NASA-CASE-LAR-10103-1	c15 N73-14468
NASA-CASE-HQN-10541-4	c16 N71-27183	NASA-CASE-LAR-10105-1	c34 N74-15652
NASA-CASE-HQN-10542-1	c74 N75-25706	NASA-CASE-LAR-10106-1	c15 N71-27169
NASA-CASE-HQN-10638-1	c15 N73-30460	NASA-CASE-LAR-10121-1	c15 N71-26721
NASA-CASE-HQN-10654-1	c16 N73-13489	NASA-CASE-LAR-10128-1	c08 N73-20217
NASA-CASE-HQN-10683	c14 N71-34389	NASA-CASE-LAR-10129-1	c15 N73-25512
NASA-CASE-HQN-10703	c21 N73-13643	NASA-CASE-LAR-10129-2	c37 N74-20063
NASA-CASE-HQN-10740-1	c72 N74-19310	NASA-CASE-LAR-10135-1	c09 N79-21083
NASA-CASE-HQN-10756-1	c14 N72-25428	NASA-CASE-LAR-10137-1	c09 N72-22204
NASA-CASE-HQN-10780	c14 N71-30265	NASA-CASE-LAR-10163-1	c09 N72-25247
NASA-CASE-HQN-10781	c23 N71-30292	NASA-CASE-LAR-10168-1	c33 N74-22865
NASA-CASE-HQN-10790-1	c36 N74-11313	NASA-CASE-LAR-10170-1	c37 N74-11301
		NASA-CASE-LAR-10173-1	c27 N71-14090

NUMBER INDEX

NASA-CASE-LAR-10176-1	c14	N72-20380	NASA-CASE-LAR-10753-1	c08	N74-30421
NASA-CASE-LAR-10180-1	c06	N71-13861	NASA-CASE-LAR-10756-1	c32	N73-26910
NASA-CASE-LAR-10184	c14	N72-22445	NASA-CASE-LAR-10765-1	c32	N73-20740
NASA-CASE-LAR-10193-1	c15	N71-27146	NASA-CASE-LAR-10766-1	c14	N72-21432
NASA-CASE-LAR-10194-1	c34	N74-30608	NASA-CASE-LAR-10773-3	c51	N77-25769
NASA-CASE-LAR-10195-1	c15	N73-19458	NASA-CASE-LAR-10774	c10	N71-13545
NASA-CASE-LAR-10203-1	c15	N72-16330	NASA-CASE-LAR-10776-1	c02	N74-10034
NASA-CASE-LAR-10204	c14	N71-27215	NASA-CASE-LAR-10782-1	c31	N74-14133
NASA-CASE-LAR-10208-1	c35	N76-18400	NASA-CASE-LAR-10782-2	c31	N75-13111
NASA-CASE-LAR-10218-1	c09	N70-38559	NASA-CASE-LAR-10788-1	c10	N73-20880
NASA-CASE-LAR-10226-1	c14	N73-19419	NASA-CASE-LAR-10799-2	c34	N76-17317
NASA-CASE-LAR-10241-1	c54	N74-14845	NASA-CASE-LAR-10800-1	c33	N72-27959
NASA-CASE-LAR-10249-1	c02	N71-26110	NASA-CASE-LAR-10805-2	c34	N77-18382
NASA-CASE-LAR-10253-1	c09	N72-25258	NASA-CASE-LAR-10806-1	c35	N74-32877
NASA-CASE-LAR-10256-1	c85	N74-34672	NASA-CASE-LAR-10812-1	c09	N74-17955
NASA-CASE-LAR-10270-1	c32	N72-25877	NASA-CASE-LAR-10815-1	c16	N72-22520
NASA-CASE-LAR-10274-1	c14	N71-17626	NASA-CASE-LAR-10836-1	c26	N72-27784
NASA-CASE-LAR-10276-1	c09	N75-15662	NASA-CASE-LAR-10841-1	c31	N74-27900
NASA-CASE-LAR-10294-1	c26	N72-28762	NASA-CASE-LAR-10855-1	c14	N73-13415
NASA-CASE-LAR-10295-1	c35	N74-21062	NASA-CASE-LAR-10862-1	c35	N74-15092
NASA-CASE-LAR-10305	c14	N71-26137	NASA-CASE-LAR-10868-1	c33	N74-11050
NASA-CASE-LAR-10310-1	c10	N73-20253	NASA-CASE-LAR-10894-1	c18	N73-14584
NASA-CASE-LAR-10311-1	c16	N73-16536	NASA-CASE-LAR-10900-1	c37	N74-23064
NASA-CASE-LAR-10317-1	c32	N71-16103	NASA-CASE-LAR-10907-1	c35	N76-29551
NASA-CASE-LAR-10318-1	c31	N74-18089	NASA-CASE-LAR-10910-1	c35	N74-13132
NASA-CASE-LAR-10319-1	c14	N73-32322	NASA-CASE-LAR-10913	c14	N72-16282
NASA-CASE-LAR-10320-1	c09	N72-23172	NASA-CASE-LAR-10941-1	c37	N74-21057
NASA-CASE-LAR-10323-1	c12	N71-17573	NASA-CASE-LAR-10941-2	c37	N79-13364
NASA-CASE-LAR-10337-1	c24	N75-30260	NASA-CASE-LAR-10951-1	c28	N73-19819
NASA-CASE-LAR-10344-1	c35	N76-33470	NASA-CASE-LAR-10953-1	c17	N73-27446
NASA-CASE-LAR-10348-1	c11	N73-12264	NASA-CASE-LAR-10961-1	c15	N73-12496
NASA-CASE-LAR-10365-1	c05	N72-27102	NASA-CASE-LAR-10970-1	c33	N76-14372
NASA-CASE-LAR-10367-1	c03	N70-26817	NASA-CASE-LAR-10994-1	c24	N75-13032
NASA-CASE-LAR-10372	c09	N71-16599	NASA-CASE-LAR-11021-1	c32	N76-14321
NASA-CASE-LAR-10373-1	c18	N71-26155	NASA-CASE-LAR-11027-1	c35	N74-18088
NASA-CASE-LAR-10385-2	c70	N74-13436	NASA-CASE-LAR-11042-1	c33	N75-27252
NASA-CASE-LAR-10385-3	c74	N78-15879	NASA-CASE-LAR-11051-1	c15	N76-14158
NASA-CASE-LAR-10403	c21	N71-11766	NASA-CASE-LAR-11052-1	c32	N73-13929
NASA-CASE-LAR-10409-1	c31	N74-21059	NASA-CASE-LAR-11053-1	c25	N74-18551
NASA-CASE-LAR-10416-1	c24	N74-30001	NASA-CASE-LAR-11059-1	c76	N75-12810
NASA-CASE-LAR-10426-1	c09	N74-19528	NASA-CASE-LAR-11069-1	c35	N75-12272
NASA-CASE-LAR-10439-1	c33	N73-27796	NASA-CASE-LAR-11071-1	c35	N75-19611
NASA-CASE-LAR-10440-1	c14	N73-32323	NASA-CASE-LAR-11072-1	c15	N73-20535
NASA-CASE-LAR-10450-1	c37	N74-27905	NASA-CASE-LAR-11074-1	c51	N75-13502
NASA-CASE-LAR-10483-1	c14	N73-32327	NASA-CASE-LAR-11084-1	c09	N73-12216
NASA-CASE-LAR-10489-1	c31	N74-18124	NASA-CASE-LAR-11087-1	c02	N73-26008
NASA-CASE-LAR-10489-2	c31	N74-32920	NASA-CASE-LAR-11110-1	c34	N75-26282
NASA-CASE-LAR-10496-1	c14	N72-22437	NASA-CASE-LAR-11112-1	c32	N76-15330
NASA-CASE-LAR-10503-1	c09	N72-21248	NASA-CASE-LAR-11138	c12	N71-20436
NASA-CASE-LAR-10507-1	c11	N72-25284	NASA-CASE-LAR-11139-1	c35	N74-32878
NASA-CASE-LAR-10511-1	c09	N72-29172	NASA-CASE-LAR-11141-1	c07	N74-32418
NASA-CASE-LAR-10513-1	c07	N72-25170	NASA-CASE-LAR-11144-1	c25	N75-26043
NASA-CASE-LAR-10523-1	c14	N72-22444	NASA-CASE-LAR-11155-1	c35	N74-15091
NASA-CASE-LAR-10531-1	c02	N73-13023	NASA-CASE-LAR-11170-1	c32	N74-12843
NASA-CASE-LAR-10539-1	c17	N73-12547	NASA-CASE-LAR-11173-1	c35	N75-19614
NASA-CASE-LAR-10541-1	c15	N72-32487	NASA-CASE-LAR-11181-1	c39	N75-31479
NASA-CASE-LAR-10544-1	c37	N74-13178	NASA-CASE-LAR-11201-1	c35	N78-24515
NASA-CASE-LAR-10545-1	c09	N72-21244	NASA-CASE-LAR-11206-1	c74	N74-30118
NASA-CASE-LAR-10546-1	c11	N72-25287	NASA-CASE-LAR-11207-1	c35	N75-19613
NASA-CASE-LAR-10547-1	c31	N74-13177	NASA-CASE-LAR-11208-1	c44	N78-32539
NASA-CASE-LAR-10549-1	c31	N73-13898	NASA-CASE-LAR-11211-1	c37	N75-12326
NASA-CASE-LAR-10550-1	c09	N74-30597	NASA-CASE-LAR-11213-1	c35	N75-15014
NASA-CASE-LAR-10551-1	c25	N74-12813	NASA-CASE-LAR-11224-1	c37	N76-18456
NASA-CASE-LAR-10557	c02	N72-11018	NASA-CASE-LAR-11237-1	c35	N75-19612
NASA-CASE-LAR-10574-1	c11	N73-13257	NASA-CASE-LAR-11252-1	c05	N75-25914
NASA-CASE-LAR-10578-1	c12	N73-25262	NASA-CASE-LAR-11263-1	c35	N75-33369
NASA-CASE-LAR-10585-1	c02	N76-22154	NASA-CASE-LAR-11302-1	c25	N75-13054
NASA-CASE-LAR-10586-1	c19	N74-15089	NASA-CASE-LAR-11310-1	c07	N77-28118
NASA-CASE-LAR-10590-1	c15	N70-26819	NASA-CASE-LAR-11326-1	c35	N75-33368
NASA-CASE-LAR-10595-1	c35	N74-16135	NASA-CASE-LAR-11341-1	c36	N75-19655
NASA-CASE-LAR-10612-1	c12	N73-28144	NASA-CASE-LAR-11352-1	c33	N75-26245
NASA-CASE-LAR-10620-1	c09	N72-25255	NASA-CASE-LAR-11354-1	c35	N75-27330
NASA-CASE-LAR-10623-1	c14	N73-30395	NASA-CASE-LAR-11361-1	c44	N77-22607
NASA-CASE-LAR-10626-1	c19	N74-21015	NASA-CASE-LAR-11370-1	c35	N78-32399
NASA-CASE-LAR-10629-1	c35	N75-33367	NASA-CASE-LAR-11372-1	c27	N74-19772
NASA-CASE-LAR-10634-1	c37	N74-18123	NASA-CASE-LAR-11387-1	c04	N76-20114
NASA-CASE-LAR-10642-1	c07	N74-31270	NASA-CASE-LAR-11387-2	c04	N77-19056
NASA-CASE-LAR-10668-1	c06	N73-16106	NASA-CASE-LAR-11389-1	c33	N77-26387
NASA-CASE-LAR-10670-1	c06	N73-30097	NASA-CASE-LAR-11390-1	c32	N77-21267
NASA-CASE-LAR-10670-2	c15	N74-27360	NASA-CASE-LAR-11397-1	c27	N75-29263
NASA-CASE-LAR-10682-1	c02	N73-26004	NASA-CASE-LAR-11405-1	c45	N76-31714
NASA-CASE-LAR-10686	c14	N71-28935	NASA-CASE-LAR-11428-1	c35	N74-34857
NASA-CASE-LAR-10688-1	c37	N74-21056	NASA-CASE-LAR-11434-1	c35	N76-22509
NASA-CASE-LAR-10706-2	c05	N77-31132	NASA-CASE-LAR-11435-1	c35	N76-15432
NASA-CASE-LAR-10717-1	c21	N73-30641	NASA-CASE-LAR-11458-1	c35	N76-16392
NASA-CASE-LAR-10726-1	c14	N73-20475	NASA-CASE-LAR-11465-1	c37	N76-21554
NASA-CASE-LAR-10728-1	c14	N73-12445	NASA-CASE-LAR-11476-1	c07	N76-27232
NASA-CASE-LAR-10730-1	c33	N74-10223	NASA-CASE-LAR-11490-1	c39	N78-16387
NASA-CASE-LAR-10739-1	c14	N73-16484	NASA-CASE-LAR-11500-1	c35	N76-24523

NUMBER INDEX

NASA-CASE-LAR-11522-1	c34	N74-34881	NASA-CASE-LAR-12285-1	c35	N78-32398
NASA-CASE-LAR-11549-1	c37	N77-11397	NASA-CASE-LAR-12304-1	c71	N78-29871
NASA-CASE-LAR-11551-1	c44	N78-22468	NASA-CASE-LAR-12326-1	c02	N79-17813
NASA-CASE-LAR-11552-1	c35	N76-14429	NASA-CASE-LAR-12344-1	c43	N78-33511
NASA-CASE-LAR-11563-1	c37	N77-23482	NASA-CASE-LAR-12375-1	c32	N78-23275
NASA-CASE-LAR-11570-1	c34	N76-18364	NASA-CASE-LAR-12562-1	c08	N79-20135
NASA-CASE-LAR-11575-1	c02	N76-16014			
NASA-CASE-LAR-11607-1	c32	N77-14292	NASA-CASE-LEW-10106-1	c28	N71-26642
NASA-CASE-LAR-11617-2	c35	N78-32397	NASA-CASE-LEW-10155-1	c09	N71-29035
NASA-CASE-LAR-11626-1	c34	N77-12332	NASA-CASE-LEW-10199-1	c27	N74-23125
NASA-CASE-LAR-11643-1	c37	N75-13268	NASA-CASE-LEW-10210-1	c28	N71-26781
NASA-CASE-LAR-11645-1	c02	N77-10001	NASA-CASE-LEW-10219-1	c18	N71-28729
NASA-CASE-LAR-11648-1	c35	N77-14407	NASA-CASE-LEW-10233	c10	N71-27126
NASA-CASE-LAR-11649-1	c51	N77-27677	NASA-CASE-LEW-10250-1	c22	N71-28759
NASA-CASE-LAR-11658-1	c37	N77-14478	NASA-CASE-LEW-10278-1	c15	N71-28582
NASA-CASE-LAR-11667-1	c52	N76-19785	NASA-CASE-LEW-10281-1	c14	N72-17327
NASA-CASE-LAR-11669-1	c45	N79-10570	NASA-CASE-LEW-10286-1	c28	N71-28915
NASA-CASE-LAR-11674-1	c07	N76-18117	NASA-CASE-LEW-10326-3	c37	N78-10474
NASA-CASE-LAR-11675-1	c45	N76-17656	NASA-CASE-LEW-10327	c17	N71-33408
NASA-CASE-LAR-11686-1	c05	N78-18045	NASA-CASE-LEW-10330-1	c09	N72-27226
NASA-CASE-LAR-11690-1	c35	N78-31406	NASA-CASE-LEW-10345-1	c10	N71-25899
NASA-CASE-LAR-11695-1	c37	N78-22374	NASA-CASE-LEW-10359	c33	N72-25911
NASA-CASE-LAR-11709-1	c37	N76-27567	NASA-CASE-LEW-10359-2	c33	N73-25952
NASA-CASE-LAR-11711-1	c74	N78-17866	NASA-CASE-LEW-10364-1	c09	N71-13522
NASA-CASE-LAR-11726-1	c37	N76-27568	NASA-CASE-LEW-10374-1	c28	N73-13773
NASA-CASE-LAR-11729-1	c34	N79-12359	NASA-CASE-LEW-10387	c09	N72-22201
NASA-CASE-LAR-11745-1	c32	N77-24339	NASA-CASE-LEW-10393-1	c17	N71-15468
NASA-CASE-LAR-11782-1	c74	N77-20882	NASA-CASE-LEW-10424-2-2	c18	N72-25539
NASA-CASE-LAR-11797-1	c08	N79-15057	NASA-CASE-LEW-10433-1	c09	N72-22197
NASA-CASE-LAR-11825-1	c35	N77-22449	NASA-CASE-LEW-10436-1	c17	N73-32415
NASA-CASE-LAR-11827-1	c32	N77-10392	NASA-CASE-LEW-10450-1	c15	N72-25448
NASA-CASE-LAR-11828-1	c27	N78-32261	NASA-CASE-LEW-10489-1	c15	N72-25447
NASA-CASE-LAR-11833-1	c06	N76-31229	NASA-CASE-LEW-10518-1	c24	N72-33681
NASA-CASE-LAR-11852-1	c05	N77-15027	NASA-CASE-LEW-10518-2	c24	N72-28714
NASA-CASE-LAR-11855-1	c31	N79-11249	NASA-CASE-LEW-10518-3	c25	N78-27226
NASA-CASE-LAR-11859-1	c35	N79-14349	NASA-CASE-LEW-10533-1	c15	N73-28515
NASA-CASE-LAR-11868-2	c08	N79-14108	NASA-CASE-LEW-10533-2	c37	N74-11300
NASA-CASE-LAR-11869-1	c74	N78-27904	NASA-CASE-LEW-10689-1	c28	N71-26173
NASA-CASE-LAR-11883-1	c09	N77-27131	NASA-CASE-LEW-10698-1	c37	N74-21063
NASA-CASE-LAR-11889-1	c19	N76-18227	NASA-CASE-LEW-10770-1	c28	N72-22770
NASA-CASE-LAR-11889-2	c37	N78-27424	NASA-CASE-LEW-10794-1	c06	N72-17093
NASA-CASE-LAR-11898-1	c24	N78-10214	NASA-CASE-LEW-10805-1	c15	N73-13465
NASA-CASE-LAR-11898-2	c24	N78-17149	NASA-CASE-LEW-10805-2	c37	N74-13179
NASA-CASE-LAR-11900-1	c37	N79-14382	NASA-CASE-LEW-10805-3	c26	N74-10521
NASA-CASE-LAR-11902-1	c27	N78-17206	NASA-CASE-LEW-10814-1	c28	N70-35422
NASA-CASE-LAR-11903-1	c07	N77-15036	NASA-CASE-LEW-10835-1	c28	N72-22771
NASA-CASE-LAR-11919-1	c07	N78-27121	NASA-CASE-LEW-10856-1	c15	N72-22490
NASA-CASE-LAR-11922-1	c25	N78-17171	NASA-CASE-LEW-10874-1	c17	N72-22535
NASA-CASE-LAR-11932-1	c05	N78-32086	NASA-CASE-LEW-10906-1	c25	N74-30502
NASA-CASE-LAR-11941-1	c06	N77-20098	NASA-CASE-LEW-10920-1	c17	N73-25569
NASA-CASE-LAR-11973-1	c35	N78-27384	NASA-CASE-LEW-10950-1	c33	N74-27683
NASA-CASE-LAR-11995-1	c28	N77-10213	NASA-CASE-LEW-10965-1	c15	N72-25452
NASA-CASE-LAR-11999-1	c35	N78-18394	NASA-CASE-LEW-10981-1	c35	N74-21018
NASA-CASE-LAR-12007-1	c74	N78-15883	NASA-CASE-LEW-11005-1	c09	N72-21243
NASA-CASE-LAR-12009-1	c44	N78-15560	NASA-CASE-LEW-11015	c26	N73-32571
NASA-CASE-LAR-12012-1	c36	N77-10517	NASA-CASE-LEW-11026-1	c15	N73-33383
NASA-CASE-LAR-12016-1	c39	N78-15512	NASA-CASE-LEW-11058-1	c20	N74-13502
NASA-CASE-LAR-12018-1	c20	N78-24275	NASA-CASE-LEW-11065-2	c44	N76-14600
NASA-CASE-LAR-12019-1	c24	N78-17150	NASA-CASE-LEW-11069-1	c44	N74-14784
NASA-CASE-LAR-12034-1	c02	N77-22045	NASA-CASE-LEW-11071-1	c27	N73-27695
NASA-CASE-LAR-12045-1	c34	N77-24423	NASA-CASE-LEW-11072-1	c14	N73-24472
NASA-CASE-LAR-12046-1	c25	N78-15210	NASA-CASE-LEW-11072-2	c35	N76-15434
NASA-CASE-LAR-12054-1	c27	N78-17218	NASA-CASE-LEW-11076-1	c37	N74-21061
NASA-CASE-LAR-12054-2	c27	N79-19160	NASA-CASE-LEW-11076-2	c37	N74-32921
NASA-CASE-LAR-12065-1	c24	N78-22162	NASA-CASE-LEW-11076-3	c37	N75-30562
NASA-CASE-LAR-12095-1	c39	N77-27432	NASA-CASE-LEW-11076-4	c37	N76-15461
NASA-CASE-LAR-12099-1	c27	N78-24360	NASA-CASE-LEW-11087-1	c15	N73-30458
NASA-CASE-LAR-12106-1	c71	N78-14867	NASA-CASE-LEW-11087-2	c37	N74-15128
NASA-CASE-LAR-12147-1	c31	N79-11246	NASA-CASE-LEW-11087-3	c37	N74-21064
NASA-CASE-LAR-12149-2	c54	N78-30821	NASA-CASE-LEW-11101-1	c31	N73-32750
NASA-CASE-LAR-12172-1	c32	N78-29310	NASA-CASE-LEW-11118-1	c20	N74-32919
NASA-CASE-LAR-12176-1	c36	N78-29435	NASA-CASE-LEW-11118-2	c20	N76-14191
NASA-CASE-LAR-12178-1	c74	N79-11866	NASA-CASE-LEW-11152-1	c15	N73-32359
NASA-CASE-LAR-12181-1	c27	N78-17205	NASA-CASE-LEW-11158-1	c37	N77-28486
NASA-CASE-LAR-12183-1	c36	N79-18307	NASA-CASE-LEW-11159-1	c14	N73-28488
NASA-CASE-LAR-12195-1	c37	N78-33446	NASA-CASE-LEW-11162-1	c33	N74-12913
NASA-CASE-LAR-12196-1	c32	N79-18154	NASA-CASE-LEW-11169-1	c37	N76-23570
NASA-CASE-LAR-12205-1	c44	N78-23567	NASA-CASE-LEW-11179-1	c27	N76-16229
NASA-CASE-LAR-12215-1	c08	N78-17070	NASA-CASE-LEW-11180-1	c25	N73-25760
NASA-CASE-LAR-12230-1	c35	N79-14347	NASA-CASE-LEW-11187-1	c28	N73-17973
NASA-CASE-LAR-12250-1	c15	N78-25120	NASA-CASE-LEW-11188-1	c02	N74-20646
NASA-CASE-LAR-12251-1	c74	N79-14892	NASA-CASE-LEW-11192-1	c09	N73-13208
NASA-CASE-LAR-12259-1	c54	N78-18762	NASA-CASE-LEW-11227-1	c73	N75-30876
NASA-CASE-LAR-12260-1	c35	N79-10390	NASA-CASE-LEW-11262-1	c27	N74-13270
NASA-CASE-LAR-12261-1	c02	N79-16805	NASA-CASE-LEW-11267-1	c17	N73-32414
NASA-CASE-LAR-12268-1	c15	N78-32168	NASA-CASE-LEW-11274-1	c37	N75-21631
NASA-CASE-LAR-12268-1	c08	N79-20136	NASA-CASE-LEW-11286-1	c07	N74-27490
NASA-CASE-LAR-12269-1	c09	N78-33123	NASA-CASE-LEW-11325-1	c06	N73-27980
NASA-CASE-LAR-12275-1	c35	N79-18296	NASA-CASE-LEW-11326-1	c23	N73-30665

NUMBER INDEX

NASA-CASE-LEW-11358	c03	N71-26088	NASA-CASE-LEW-12389-2	c07	N78-18066
NASA-CASE-LEW-11359	c03	N71-28579	NASA-CASE-LEW-12389-3	c07	N79-14096
NASA-CASE-LEW-11359-2	c03	N72-20034	NASA-CASE-LEW-12390-1	c07	N78-17056
NASA-CASE-LEW-11387-1	c37	N74-18128	NASA-CASE-LEW-12419-1	c07	N77-14025
NASA-CASE-LEW-11388-1	c15	N73-32358	NASA-CASE-LEW-12441-1	c34	N79-13289
NASA-CASE-LEW-11388-2	c37	N74-21055	NASA-CASE-LEW-12441-2	c34	N79-21313
NASA-CASE-LEW-11390-2	c25	N76-27383	NASA-CASE-LEW-12444-1	c33	N77-28385
NASA-CASE-LEW-11390-3	c25	N76-29379	NASA-CASE-LEW-12452-1	c07	N78-25089
NASA-CASE-LEW-11402-1	c07	N74-28226	NASA-CASE-LEW-12465-1	c25	N78-25148
NASA-CASE-LEW-11484-1	c24	N75-33181	NASA-CASE-LEW-12477-1	c37	N77-32501
NASA-CASE-LEW-11496-1	c44	N77-14580	NASA-CASE-LEW-12493-1	c24	N78-22163
NASA-CASE-LEW-11531	c15	N71-14932	NASA-CASE-LEW-12496-1	c07	N78-33101
NASA-CASE-LEW-11549-1	c44	N77-19571	NASA-CASE-LEW-12508-1	c34	N78-17335
NASA-CASE-LEW-11569-1	c07	N74-15453	NASA-CASE-LEW-12508-2	c34	N77-32435
NASA-CASE-LEW-11573-1	c26	N77-28265	NASA-CASE-LEW-12527-1	c37	N77-32500
NASA-CASE-LEW-11581-1	c54	N75-13531	NASA-CASE-LEW-12541-1	c44	N78-25529
NASA-CASE-LEW-11583-1	c35	N79-17192	NASA-CASE-LEW-12542-1	c26	N77-24254
NASA-CASE-LEW-11593-1	c20	N76-14190	NASA-CASE-LEW-12542-3	c26	N79-19145
NASA-CASE-LEW-11617-1	c33	N74-10195	NASA-CASE-LEW-12550-1	c24	N77-19170
NASA-CASE-LEW-11632-2	c35	N75-13213	NASA-CASE-LEW-12552-1	c44	N78-25527
NASA-CASE-LEW-11646-1	c20	N74-31269	NASA-CASE-LEW-12552-2	c44	N79-11472
NASA-CASE-LEW-11669-1	c05	N73-27062	NASA-CASE-LEW-12554-1	c34	N78-18355
NASA-CASE-LEW-11672-1	c37	N74-27904	NASA-CASE-LEW-12569-1	c37	N79-10418
NASA-CASE-LEW-11676-1	c37	N76-22541	NASA-CASE-LEW-12586-1	c44	N78-27520
NASA-CASE-LEW-11694-1	c20	N75-18310	NASA-CASE-LEW-12587-1	c44	N77-31601
NASA-CASE-LEW-11694-2	c37	N76-14461	NASA-CASE-LEW-12608-1	c07	N77-27116
NASA-CASE-LEW-11696-1	c37	N75-13261	NASA-CASE-LEW-12619-1	c24	N77-19171
NASA-CASE-LEW-11696-2	c26	N75-19408	NASA-CASE-LEW-12649-1	c44	N78-25530
NASA-CASE-LEW-11726-1	c26	N73-26752	NASA-CASE-LEW-12658-1	c71	N79-14871
NASA-CASE-LEW-11855-1	c07	N78-25090	NASA-CASE-LEW-12661-1	c35	N79-14345
NASA-CASE-LEW-11860-1	c37	N76-18458	NASA-CASE-LEW-12668-1	c52	N78-14773
NASA-CASE-LEW-11866-1	c72	N76-15860	NASA-CASE-LEW-12718-1	c34	N78-25351
NASA-CASE-LEW-11876-1	c20	N76-21276	NASA-CASE-LEW-12723-1	c52	N77-30737
NASA-CASE-LEW-11877-1	c34	N78-27357	NASA-CASE-LEW-12760-1	c07	N77-17059
NASA-CASE-LEW-11881-1	c33	N77-17354	NASA-CASE-LEW-12775-1	c44	N79-11468
NASA-CASE-LEW-11915-1	c35	N76-14431	NASA-CASE-LEW-12780-1	c20	N79-20179
NASA-CASE-LEW-11925-1	c37	N75-31446	NASA-CASE-LEW-12785-1	c37	N78-24545
NASA-CASE-LEW-11930-1	c24	N76-22309	NASA-CASE-LEW-12791-1	c33	N78-32341
NASA-CASE-LEW-11930-3	c24	N77-32249	NASA-CASE-LEW-12793-1	c37	N79-11403
NASA-CASE-LEW-11930-4	c24	N79-17916	NASA-CASE-LEW-12806-1	c44	N78-25553
NASA-CASE-LEW-11938-1	c33	N76-15373	NASA-CASE-LEW-12819-1	c44	N79-11467
NASA-CASE-LEW-11949-1	c37	N76-29588	NASA-CASE-LEW-12819-2	c44	N79-18444
NASA-CASE-LEW-11978-1	c33	N77-26385	NASA-CASE-LEW-12830-1	c07	N77-23106
NASA-CASE-LEW-11981-1	c31	N78-17237	NASA-CASE-LEW-12905-1	c26	N78-18183
NASA-CASE-LEW-11981-2	c34	N79-20336	NASA-CASE-LEW-12906-1	c26	N77-32279
NASA-CASE-LEW-12013-1	c33	N79-10339	NASA-CASE-LEW-12916-1	c37	N78-17384
NASA-CASE-LEW-12038-3	c44	N78-25555	NASA-CASE-LEW-12917-1	c07	N78-18067
NASA-CASE-LEW-12039-1	c44	N78-14625	NASA-CASE-LEW-12940-1	c75	N79-10894
NASA-CASE-LEW-12048-1	c20	N77-20162	NASA-CASE-LEW-12955-1	c52	N77-30736
NASA-CASE-LEW-12050-1	c35	N77-32454	NASA-CASE-LEW-12972-1	c23	N78-22157
NASA-CASE-LEW-12051-1	c52	N75-33640	NASA-CASE-LEW-12982-1	c37	N78-28459
NASA-CASE-LEW-12053-1	c27	N78-15276	NASA-CASE-LEW-12990-1	c07	N78-27122
NASA-CASE-LEW-12053-2	c23	N77-32244	NASA-CASE-LEW-12991-1	c37	N79-12445
NASA-CASE-LEW-12078-1	c35	N75-30503	NASA-CASE-LEW-13027-1	c27	N79-11216
NASA-CASE-LEW-12081-1	c28	N78-24365	NASA-CASE-LEW-13050-1	c07	N79-14095
NASA-CASE-LEW-12081-2	c72	N78-19907	NASA-CASE-LEW-13101-1	c25	N79-14173
NASA-CASE-LEW-12081-3	c44	N79-18455	NASA-CASE-LEW-13103-1	c25	N79-14172
NASA-CASE-LEW-12082-1	c20	N77-10148	NASA-CASE-LEW-13135-1	c25	N79-14174
NASA-CASE-LEW-12083-1	c37	N78-13436	NASA-CASE-LEW-13148-1	c44	N79-14538
NASA-CASE-LEW-12094-1	c76	N76-25049	NASA-CASE-LEW-13150-1	c44	N78-25554
NASA-CASE-LEW-12095-1	c26	N78-18182			
NASA-CASE-LEW-12118-1	c24	N77-27188	NASA-CASE-HFS-06074	c15	N71-20393
NASA-CASE-LEW-12119-1	c37	N76-20488	NASA-CASE-HFS-07369	c15	N71-20443
NASA-CASE-LEW-12131-1	c37	N79-18318	NASA-CASE-HFS-10068	c10	N71-25139
NASA-CASE-LEW-12131-2	c07	N78-31103	NASA-CASE-HFS-10340	c15	N71-17628
NASA-CASE-LEW-12137-1	c25	N78-10224	NASA-CASE-HFS-10412	c12	N71-17578
NASA-CASE-LEW-12159-1	c44	N78-19599	NASA-CASE-HFS-10506	c06	N73-30100
NASA-CASE-LEW-12164-1	c36	N77-32478	NASA-CASE-HFS-10507	c06	N73-30101
NASA-CASE-LEW-12174-2	c35	N79-14346	NASA-CASE-HFS-10509	c06	N73-30103
NASA-CASE-LEW-12185-1	c44	N78-25528	NASA-CASE-HFS-10512	c06	N73-30099
NASA-CASE-LEW-12217-1	c43	N78-14452	NASA-CASE-HFS-10555	c11	N71-19494
NASA-CASE-LEW-12220-1	c44	N77-14581	NASA-CASE-HFS-10946-1	c31	N79-21226
NASA-CASE-LEW-12232-1	c07	N79-10057	NASA-CASE-HFS-11132	c15	N71-17649
NASA-CASE-LEW-12236-2	c44	N79-14528	NASA-CASE-HFS-11133	c31	N71-16222
NASA-CASE-LEW-12245-1	c26	N77-20201	NASA-CASE-HFS-11204	c14	N71-29134
NASA-CASE-LEW-12252-1	c34	N79-13288	NASA-CASE-HFS-11279	c16	N71-20400
NASA-CASE-LEW-12258-1	c52	N77-28716	NASA-CASE-HFS-11492	c06	N73-30102
NASA-CASE-LEW-12270-1	c26	N77-32280	NASA-CASE-HFS-11497	c28	N71-16224
NASA-CASE-LEW-12274-1	c37	N79-10426	NASA-CASE-HFS-11537	c14	N71-20442
NASA-CASE-LEW-12277-2	c33	N78-25323	NASA-CASE-HFS-12750	c27	N71-16223
NASA-CASE-LEW-12312-1	c07	N77-32148	NASA-CASE-HFS-12805	c15	N71-17805
NASA-CASE-LEW-12313-1	c37	N78-10468	NASA-CASE-HFS-12806	c14	N71-17588
NASA-CASE-LEW-12317-1	c07	N78-17055	NASA-CASE-HFS-12827	c14	N71-17656
NASA-CASE-LEW-12321-1	c37	N78-10467	NASA-CASE-HFS-12915	c11	N71-17600
NASA-CASE-LEW-12358-1	c44	N79-17313	NASA-CASE-HFS-13046	c07	N71-19433
NASA-CASE-LEW-12358-2	c25	N78-25149	NASA-CASE-HFS-13130	c10	N72-17173
NASA-CASE-LEW-12363-1	c44	N76-19552	NASA-CASE-HFS-13532	c18	N72-17532
NASA-CASE-LEW-12364-1	c44	N77-22606	NASA-CASE-HFS-13686	c15	N71-18132
NASA-CASE-LEW-12378-1	c07	N79-14097	NASA-CASE-HFS-13687	c09	N71-28691

NUMBER INDEX

NASA-CASE-HFS-13687-2	c09 N72-22198	NASA-CASE-HFS-20675	c26 N73-26751
NASA-CASE-HFS-13929	c15 N71-27091	NASA-CASE-HFS-20687	c16 N72-11415
NASA-CASE-HFS-13994-1	c06 N71-11240	NASA-CASE-HFS-20698	c15 N72-20446
NASA-CASE-HFS-13994-2	c06 N72-25148	NASA-CASE-HFS-20698-2	c15 N73-19457
NASA-CASE-HFS-14017	c14 N71-26627	NASA-CASE-HFS-20710	c11 N72-23215
NASA-CASE-HFS-14023	c33 N71-25351	NASA-CASE-HFS-20730-1	c39 N74-13131
NASA-CASE-HFS-14114	c33 N71-27862	NASA-CASE-HFS-20757	c09 N72-28225
NASA-CASE-HFS-14114-2	c09 N71-24807	NASA-CASE-HFS-20760	c14 N72-33377
NASA-CASE-HFS-14216	c14 N73-13418	NASA-CASE-HFS-20761-1	c44 N74-27519
NASA-CASE-HFS-14253	c33 N71-24858	NASA-CASE-HFS-20767-1	c38 N74-15130
NASA-CASE-HFS-14259	c15 N71-19213	NASA-CASE-HFS-20774	c14 N73-19420
NASA-CASE-HFS-14322	c08 N71-18692	NASA-CASE-HFS-20775-1	c31 N75-12161
NASA-CASE-HFS-14405	c15 N72-28495	NASA-CASE-HFS-20809	c23 N73-13660
NASA-CASE-HFS-14610	c09 N71-28886	NASA-CASE-HFS-20823-1	c16 N73-30476
NASA-CASE-HFS-14671	c05 N71-12341	NASA-CASE-HFS-20829	c12 N72-21310
NASA-CASE-HFS-14685	c31 N71-15689	NASA-CASE-HFS-20830	c15 N71-30028
NASA-CASE-HFS-14710	c09 N72-22195	NASA-CASE-HFS-20831	c28 N71-29153
NASA-CASE-HFS-14711	c15 N71-26185	NASA-CASE-HFS-20855	c15 N73-27405
NASA-CASE-HFS-14741	c09 N70-20737	NASA-CASE-HFS-20855-1	c15 N77-10112
NASA-CASE-HFS-14772	c15 N71-17692	NASA-CASE-HFS-20861-1	c18 N73-32437
NASA-CASE-HFS-14971	c15 N71-24984	NASA-CASE-HFS-20863	c31 N73-26876
NASA-CASE-HFS-15063	c14 N72-25412	NASA-CASE-HFS-20890	c14 N72-22439
NASA-CASE-HFS-15162	c14 N72-32452	NASA-CASE-HFS-20916	c14 N73-25460
NASA-CASE-HFS-15218-1	c37 N77-19457	NASA-CASE-HFS-20922	c31 N72-20840
NASA-CASE-HFS-16570-1	c05 N73-32013	NASA-CASE-HFS-20922-1	c18 N74-22136
NASA-CASE-HFS-16609	c14 N72-21431	NASA-CASE-HFS-20932-1	c35 N75-19616
NASA-CASE-HFS-16609-3	c03 N76-32140	NASA-CASE-HFS-20935	c09 N71-34212
NASA-CASE-HFS-18100	c15 N72-11390	NASA-CASE-HFS-20944	c15 N73-13466
NASA-CASE-HFS-18495	c15 N72-11385	NASA-CASE-HFS-20979	c06 N72-25151
NASA-CASE-HFS-19193-1	c37 N75-19686	NASA-CASE-HFS-20979-2	c06 N73-32030
NASA-CASE-HFS-19194-1	c37 N76-14460	NASA-CASE-HFS-20994-1	c35 N75-12271
NASA-CASE-HFS-19220-1	c20 N76-22296	NASA-CASE-HFS-21010-1	c05 N73-30078
NASA-CASE-HFS-19259-1	c36 N78-14380	NASA-CASE-HFS-21040-1	c06 N73-30098
NASA-CASE-HFS-19287-1	c34 N77-30399	NASA-CASE-HFS-21042	c07 N72-25171
NASA-CASE-HFS-20011	c18 N72-22566	NASA-CASE-HFS-21045-1	c35 N75-15932
NASA-CASE-HFS-20044	c14 N71-28993	NASA-CASE-HFS-21046-1	c14 N73-27377
NASA-CASE-HFS-20068	c07 N71-27191	NASA-CASE-HFS-21049-1	c52 N74-27864
NASA-CASE-HFS-20074	c16 N71-15565	NASA-CASE-HFS-21077-1	c29 N75-28135
NASA-CASE-HFS-20075	c09 N71-26133	NASA-CASE-HFS-21087-1	c35 N74-17153
NASA-CASE-HFS-20095	c24 N72-11595	NASA-CASE-HFS-21108-1	c34 N74-27861
NASA-CASE-HFS-20096	c14 N71-30026	NASA-CASE-HFS-21109-1	c05 N73-27941
NASA-CASE-HFS-20125	c16 N72-13437	NASA-CASE-HFS-21115-1	c54 N74-12779
NASA-CASE-HFS-20130	c28 N71-27585	NASA-CASE-HFS-21136-1	c35 N74-18323
NASA-CASE-HFS-20180	c16 N72-12440	NASA-CASE-HFS-21163-1	c54 N74-17853
NASA-CASE-HFS-20207-1	c09 N73-32107	NASA-CASE-HFS-21214-1	c09 N73-30181
NASA-CASE-HFS-20240	c14 N71-26788	NASA-CASE-HFS-21233-1	c38 N74-15395
NASA-CASE-HFS-20242	c14 N73-19421	NASA-CASE-HFS-21244-1	c36 N75-15028
NASA-CASE-HFS-20243	c23 N73-13662	NASA-CASE-HFS-21309-1	c37 N74-18125
NASA-CASE-HFS-20249	c15 N72-11386	NASA-CASE-HFS-21311-1	c20 N76-21275
NASA-CASE-HFS-20261	c14 N71-27005	NASA-CASE-HFS-21362	c11 N73-20267
NASA-CASE-HFS-20284-1	c52 N74-12778	NASA-CASE-HFS-21364-1	c37 N74-18126
NASA-CASE-HFS-20299	c15 N72-11392	NASA-CASE-HFS-21372-1	c74 N74-27866
NASA-CASE-HFS-20317	c15 N73-13463	NASA-CASE-HFS-21374-1	c33 N74-12951
NASA-CASE-HFS-20325	c28 N71-27095	NASA-CASE-HFS-21394-1	c34 N74-27744
NASA-CASE-HFS-20332	c05 N72-20097	NASA-CASE-HFS-21395-1	c25 N74-26948
NASA-CASE-HFS-20332-2	c05 N73-25125	NASA-CASE-HFS-21415-1	c52 N74-20728
NASA-CASE-HFS-20333	c09 N71-13486	NASA-CASE-HFS-21424-1	c34 N74-27730
NASA-CASE-HFS-20335-1	c35 N74-10415	NASA-CASE-HFS-21433	c09 N73-20232
NASA-CASE-HFS-20355	c33 N71-25353	NASA-CASE-HFS-21441-1	c14 N73-30392
NASA-CASE-HFS-20385	c09 N71-24904	NASA-CASE-HFS-21455-1	c35 N74-15146
NASA-CASE-HFS-20386	c21 N71-19212	NASA-CASE-HFS-21462-1	c33 N74-14935
NASA-CASE-HFS-20395	c15 N71-24903	NASA-CASE-HFS-21465-1	c10 N73-32145
NASA-CASE-HFS-20400	c31 N71-18611	NASA-CASE-HFS-21470-1	c44 N74-19870
NASA-CASE-HFS-20407	c09 N73-19235	NASA-CASE-HFS-21481-1	c37 N74-18127
NASA-CASE-HFS-20408	c18 N73-12604	NASA-CASE-HFS-21485-1	c37 N74-25968
NASA-CASE-HFS-20410	c15 N71-19214	NASA-CASE-HFS-21488-1	c14 N75-24794
NASA-CASE-HFS-20413	c15 N72-21463	NASA-CASE-HFS-21540-1	c32 N74-19790
NASA-CASE-HFS-20418	c14 N73-24473	NASA-CASE-HFS-21556-1	c35 N74-26945
NASA-CASE-HFS-20423	c15 N72-11388	NASA-CASE-HFS-21577-1	c19 N74-29470
NASA-CASE-HFS-20433	c15 N72-28496	NASA-CASE-HFS-21606-1	c37 N75-19685
NASA-CASE-HFS-20434	c11 N72-25288	NASA-CASE-HFS-21611-1	c54 N75-12616
NASA-CASE-HFS-20453	c15 N71-29133	NASA-CASE-HFS-21616-1	c33 N75-30429
NASA-CASE-HFS-20482	c15 N72-22492	NASA-CASE-HFS-21628-1	c44 N75-32581
NASA-CASE-HFS-20485	c14 N72-11365	NASA-CASE-HFS-21628-2	c44 N76-23675
NASA-CASE-HFS-20486-2	c27 N74-17283	NASA-CASE-HFS-21629	c14 N72-22442
NASA-CASE-HFS-20506-1	c35 N75-12273	NASA-CASE-HFS-21660-1	c35 N74-21017
NASA-CASE-HFS-20509	c11 N72-17183	NASA-CASE-HFS-21671-1	c33 N74-22885
NASA-CASE-HFS-20523	c14 N72-27412	NASA-CASE-HFS-21672-1	c74 N76-19935
NASA-CASE-HFS-20546-2	c14 N73-30389	NASA-CASE-HFS-21675-1	c25 N74-33378
NASA-CASE-HFS-20586	c15 N71-17686	NASA-CASE-HFS-21680-1	c18 N74-27397
NASA-CASE-HFS-20589	c25 N72-32688	NASA-CASE-HFS-21681-1	c18 N74-27397
NASA-CASE-HFS-20596	c14 N72-17324	NASA-CASE-HFS-21698-1	c33 N74-26732
NASA-CASE-HFS-20607-1	c37 N76-19436	NASA-CASE-HFS-21704-1	c35 N75-25124
NASA-CASE-HFS-20619	c28 N72-11708	NASA-CASE-HFS-21728-1	c35 N74-27865
NASA-CASE-HFS-20620	c11 N72-27262	NASA-CASE-HFS-21761-1	c35 N75-15931
NASA-CASE-HFS-20642	c14 N72-21407	NASA-CASE-HFS-21846-1	c37 N74-26976
NASA-CASE-HFS-20645-1	c37 N74-23070	NASA-CASE-HFS-21919-1	c10 N73-25243
NASA-CASE-HFS-20658-1	c14 N73-30386	NASA-CASE-HFS-21931-1	c37 N75-26372
NASA-CASE-HFS-20673	c14 N73-20476	NASA-CASE-HFS-22002-1	c44 N76-16612

NUMBER INDEX

NASA-CASE-HFS-22022-1	c37	N76-15460	NASA-CASE-HFS-23461-1	c35	N79-10389
NASA-CASE-HFS-22039-1	c09	N75-12968	NASA-CASE-HFS-23506-1	c24	N78-24290
NASA-CASE-HFS-22040-1	c35	N74-26946	NASA-CASE-HFS-23513-1	c74	N79-11865
NASA-CASE-HFS-22060-1	c35	N75-29380	NASA-CASE-HFS-23515-1	c44	N78-22469
NASA-CASE-HFS-22073-1	c33	N75-13139	NASA-CASE-HFS-23518-1	c44	N79-11469
NASA-CASE-HFS-22088-1	c33	N75-15874	NASA-CASE-HFS-23518-2	c44	N77-31611
NASA-CASE-HFS-22102-1	c54	N74-20725	NASA-CASE-HFS-23518-3	c44	N78-25557
NASA-CASE-HFS-22129-1	c33	N75-18477	NASA-CASE-HFS-23540-1	c44	N78-17468
NASA-CASE-HFS-22133-1	c33	N74-26977	NASA-CASE-HFS-23541-1	c76	N79-14906
NASA-CASE-HFS-22145-1	c75	N75-13625	NASA-CASE-HFS-23551-1	c04	N76-26175
NASA-CASE-HFS-22145-2	c75	N76-17951	NASA-CASE-HFS-23564-1	c15	N78-25119
NASA-CASE-HFS-22189-1	c35	N75-19615	NASA-CASE-HFS-23579-1	c18	N79-11108
NASA-CASE-HFS-22208-1	c33	N75-26244	NASA-CASE-HFS-23620-1	c37	N79-10421
NASA-CASE-HFS-22234-1	c32	N79-10264	NASA-CASE-HFS-23626-1	c24	N78-32190
NASA-CASE-HFS-22283-1	c37	N75-33395	NASA-CASE-HFS-23642-2	c20	N78-27176
NASA-CASE-HFS-22287-1	c75	N76-14931	NASA-CASE-HFS-23659-1	c33	N79-17133
NASA-CASE-HFS-22323-1	c37	N76-14463	NASA-CASE-HFS-23674-1	c24	N78-27182
NASA-CASE-HFS-22324-1	c27	N75-27160	NASA-CASE-HFS-23675-1	c89	N79-10969
NASA-CASE-HFS-22342-1	c33	N75-30428	NASA-CASE-HFS-23692-1	c54	N78-19773
NASA-CASE-HFS-22343-1	c33	N74-34638	NASA-CASE-HFS-23696-1	c54	N78-32724
NASA-CASE-HFS-22355-1	c23	N76-15268	NASA-CASE-HFS-23717-1	c52	N79-14756
NASA-CASE-HFS-22356-1	c23	N75-30256	NASA-CASE-HFS-23727-1	c44	N78-13556
NASA-CASE-HFS-22409-2	c74	N78-15880	NASA-CASE-HFS-23777-1	c37	N78-28460
NASA-CASE-HFS-22411-1	c37	N74-21058	NASA-CASE-HFS-23816-1	c26	N79-16943
NASA-CASE-HFS-22458-1	c44	N77-10635	NASA-CASE-HFS-23845-1	c33	N78-32347
NASA-CASE-HFS-22517-1	c35	N76-18402	NASA-CASE-HFS-23862-1	c48	N79-10689
NASA-CASE-HFS-22517-1	c36	N79-21333	NASA-CASE-HFS-23883-1	c51	N79-21743
NASA-CASE-HFS-22537-1	c35	N75-27328	NASA-CASE-HFS-23904-1	c20	N79-13077
NASA-CASE-HFS-22560-1	c33	N77-14335	NASA-CASE-HFS-25000-1	c25	N79-14171
NASA-CASE-HFS-22562-1	c44	N76-14595			
NASA-CASE-HFS-22597	c36	N78-17366	NASA-CASE-HSC-10954-1	c54	N78-18761
NASA-CASE-HFS-22631-1	c66	N76-19888	NASA-CASE-HSC-10959	c15	N71-26243
NASA-CASE-HFS-22636-1	c37	N76-22540	NASA-CASE-HSC-10960-1	c03	N71-24718
NASA-CASE-HFS-22649-1	c37	N75-25186	NASA-CASE-HSC-10966	c14	N71-19568
NASA-CASE-HFS-22671-1	c35	N75-21582	NASA-CASE-HSC-11010	c15	N71-19485
NASA-CASE-HFS-22671-2	c35	N77-17426	NASA-CASE-HSC-11072	c54	N74-32546
NASA-CASE-HFS-22707-1	c37	N76-15457	NASA-CASE-HSC-11235	c33	N78-17294
NASA-CASE-HFS-22729-1	c32	N76-21366	NASA-CASE-HSC-11242	c35	N78-17358
NASA-CASE-HFS-22734-1	c18	N75-19329	NASA-CASE-HSC-11253	c05	N71-12343
NASA-CASE-HFS-22743-1	c44	N76-22657	NASA-CASE-HSC-11277	c09	N71-29008
NASA-CASE-HFS-22744-1	c44	N76-24696	NASA-CASE-HSC-11561-1	c05	N73-32014
NASA-CASE-HFS-22749-1	c44	N76-14601	NASA-CASE-HSC-11817-1	c15	N71-26611
NASA-CASE-HFS-22758-1	c70	N75-26789	NASA-CASE-HSC-11847-1	c14	N72-11363
NASA-CASE-HFS-22787-1	c15	N77-10113	NASA-CASE-HSC-11849-1	c15	N72-22488
NASA-CASE-HFS-22880-1	c33	N76-31410	NASA-CASE-HSC-12033-1	c09	N71-13531
NASA-CASE-HFS-22880-2	c33	N77-31407	NASA-CASE-HSC-12049	c31	N71-16080
NASA-CASE-HFS-22905-1	c19	N76-22284	NASA-CASE-HSC-12052-1	c15	N71-24599
NASA-CASE-HFS-22906-1	c75	N78-27913	NASA-CASE-HSC-12084-1	c12	N71-17569
NASA-CASE-HFS-22907-1	c26	N76-18257	NASA-CASE-HSC-12086-1	c05	N71-12345
NASA-CASE-HFS-22926-1	c24	N77-27187	NASA-CASE-HSC-12101	c09	N71-18720
NASA-CASE-HFS-22938-1	c34	N76-18374	NASA-CASE-HSC-12105-1	c14	N72-21409
NASA-CASE-HFS-22991-1	c34	N77-10463	NASA-CASE-HSC-12109	c18	N71-26285
NASA-CASE-HFS-23001-1	c76	N77-32919	NASA-CASE-HSC-12111-1	c02	N71-11039
NASA-CASE-HFS-23008-1	c35	N78-18390	NASA-CASE-HSC-12116-1	c15	N71-17648
NASA-CASE-HFS-23047-1	c37	N76-18454	NASA-CASE-HSC-12121-1	c15	N71-27147
NASA-CASE-HFS-23051-1	c37	N79-10422	NASA-CASE-HSC-12135-1	c09	N71-12526
NASA-CASE-HFS-23052-2	c74	N79-13855	NASA-CASE-HSC-12139-1	c28	N71-14058
NASA-CASE-HFS-23059-1	c44	N76-27664	NASA-CASE-HSC-12143-1	c33	N72-17947
NASA-CASE-HFS-23062-1	c37	N77-12402	NASA-CASE-HSC-12146-1	c07	N72-17109
NASA-CASE-HFS-23074-1	c54	N77-21844	NASA-CASE-HSC-12165-1	c07	N71-33696
NASA-CASE-HFS-23088-1	c37	N77-23483	NASA-CASE-HSC-12168-1	c09	N71-18600
NASA-CASE-HFS-23099-1	c09	N76-23273	NASA-CASE-HSC-12178-1	c09	N71-13518
NASA-CASE-HFS-23114-1	c38	N78-32447	NASA-CASE-HSC-12205-1	c07	N71-27056
NASA-CASE-HFS-23118-1	c35	N77-31465	NASA-CASE-HSC-12206-1	c05	N71-17599
NASA-CASE-HFS-23167-1	c44	N76-31667	NASA-CASE-HSC-12209	c09	N71-24842
NASA-CASE-HFS-23175-1	c35	N77-30436	NASA-CASE-HSC-12223-1	c07	N71-26181
NASA-CASE-HFS-23178-1	c35	N77-10493	NASA-CASE-HSC-12233-1	c15	N72-25454
NASA-CASE-HFS-23181-1	c33	N77-17351	NASA-CASE-HSC-12233-2	c32	N73-13921
NASA-CASE-HFS-23186-1	c33	N76-23483	NASA-CASE-HSC-12239-1	c52	N79-21750
NASA-CASE-HFS-23186-2	c24	N78-25137	NASA-CASE-HSC-12243-1	c05	N71-24728
NASA-CASE-HFS-23194-1	c35	N78-17357	NASA-CASE-HSC-12259-1	c07	N70-12616
NASA-CASE-HFS-23225-1	c52	N77-14735	NASA-CASE-HSC-12259-2	c07	N72-33146
NASA-CASE-HFS-23267-1	c35	N77-20401	NASA-CASE-HSC-12279	c15	N72-17450
NASA-CASE-HFS-23270-1	c44	N78-25531	NASA-CASE-HSC-12279-1	c15	N70-35679
NASA-CASE-HFS-23274-1	c33	N78-13320	NASA-CASE-HSC-12280	c27	N71-16348
NASA-CASE-HFS-23280-1	c33	N78-10376	NASA-CASE-HSC-12293-1	c14	N72-27411
NASA-CASE-HFS-23281-1	c35	N77-22450	NASA-CASE-HSC-12297	c14	N72-23457
NASA-CASE-HFS-23299-1	c39	N77-28511	NASA-CASE-HSC-12324-1	c05	N72-22093
NASA-CASE-HFS-23303-1	c32	N77-18307	NASA-CASE-HSC-12327-1	c35	N72-27368
NASA-CASE-HFS-23311-1	c54	N78-17676	NASA-CASE-HSC-12357	c15	N73-12489
NASA-CASE-HFS-23312-1	c33	N78-27326	NASA-CASE-HSC-12363-1	c14	N73-26431
NASA-CASE-HFS-23315-1	c76	N78-24950	NASA-CASE-HSC-12372-1	c31	N72-25842
NASA-CASE-HFS-23345-1	c27	N77-30237	NASA-CASE-HSC-12389	c33	N71-29052
NASA-CASE-HFS-23349-1	c44	N77-30613	NASA-CASE-HSC-12390	c27	N71-29155
NASA-CASE-HFS-23362-1	c47	N77-10753	NASA-CASE-HSC-12391	c30	N73-12884
NASA-CASE-HFS-23363-1	c35	N78-32396	NASA-CASE-HSC-12393-1	c02	N73-26006
NASA-CASE-HFS-23405-1	c26	N77-29260	NASA-CASE-HSC-12394-1	c08	N74-10942
NASA-CASE-HFS-23447-1	c37	N79-11404	NASA-CASE-HSC-12395	c09	N72-25257
NASA-CASE-HFS-23460-1	c09	N77-12070	NASA-CASE-HSC-12396-1	c03	N73-31988

NUMBER INDEX

NASA-CASE-HSC-12397-1	c05 N72-25119	NASA-CASE-HSC-14270-1	c27 N76-22377
NASA-CASE-HSC-12398	c05 N72-20098	NASA-CASE-HSC-14270-2	c27 N76-23426
NASA-CASE-HSC-12404-1	c23 N73-13661	NASA-CASE-HSC-14273-1	c34 N75-33342
NASA-CASE-HSC-12408-1	c46 N74-13011	NASA-CASE-HSC-14276-1	c52 N77-14737
NASA-CASE-HSC-12411-1	c05 N72-20096	NASA-CASE-HSC-14331-1	c27 N76-24405
NASA-CASE-HSC-12423-1	c91 N76-30131	NASA-CASE-HSC-14331-2	c27 N78-17213
NASA-CASE-HSC-12428-1	c10 N73-25240	NASA-CASE-HSC-14331-3	c27 N78-32262
NASA-CASE-HSC-12433	c31 N73-14854	NASA-CASE-HSC-14339-1	c05 N75-24716
NASA-CASE-HSC-12448-1	c14 N72-20394	NASA-CASE-HSC-14428-1	c23 N77-17161
NASA-CASE-HSC-12458-1	c08 N73-32081	NASA-CASE-HSC-14435-1	c37 N76-18455
NASA-CASE-HSC-12462-1	c32 N74-20809	NASA-CASE-HSC-14472-1	c43 N77-10584
NASA-CASE-HSC-12494-1	c32 N74-20810	NASA-CASE-HSC-14557-1	c32 N76-16249
NASA-CASE-HSC-12506-1	c32 N77-12239	NASA-CASE-HSC-14558-1	c32 N75-21486
NASA-CASE-HSC-12531-1	c35 N75-30504	NASA-CASE-HSC-14623-1	c52 N77-28717
NASA-CASE-HSC-12549-1	c37 N74-27903	NASA-CASE-HSC-14632-1	c54 N78-14784
NASA-CASE-HSC-12559-1	c18 N76-14186	NASA-CASE-HSC-14640-1	c54 N76-14804
NASA-CASE-HSC-12561-1	c18 N76-17185	NASA-CASE-HSC-14649-1	c33 N76-16331
NASA-CASE-HSC-12564-1	c54 N76-15792	NASA-CASE-HSC-14653-1	c35 N77-19385
NASA-CASE-HSC-12564-2	c03 N78-25070	NASA-CASE-HSC-14683-1	c74 N77-18893
NASA-CASE-HSC-12568-1	c24 N76-14204	NASA-CASE-HSC-14733-1	c54 N76-24900
NASA-CASE-HSC-12593-1	c17 N76-21250	NASA-CASE-HSC-14735-1	c54 N76-24900
NASA-CASE-HSC-12607-1	c32 N75-21485	NASA-CASE-HSC-14757-1	c35 N78-10428
NASA-CASE-HSC-12609-1	c05 N73-32012	NASA-CASE-HSC-14771-1	c54 N77-32722
NASA-CASE-HSC-12611-1	c12 N76-15189	NASA-CASE-HSC-14773-1	c35 N78-12390
NASA-CASE-HSC-12615-1	c37 N76-19437	NASA-CASE-HSC-14795-1	c27 N76-15314
NASA-CASE-HSC-12617-1	c35 N76-29552	NASA-CASE-HSC-14795-2	c24 N78-25138
NASA-CASE-HSC-12618-1	c74 N78-17865	NASA-CASE-HSC-14805-1	c54 N78-32720
NASA-CASE-HSC-12619-1	c39 N75-21671	NASA-CASE-HSC-14831-1	c25 N78-10225
NASA-CASE-HSC-12619-2	c27 N79-12221	NASA-CASE-HSC-14836-1	c52 N76-27839
NASA-CASE-HSC-12631-1	c24 N77-28225	NASA-CASE-HSC-14840-1	c32 N77-24331
NASA-CASE-HSC-12631-3	c26 N79-21183	NASA-CASE-HSC-14903-1	c27 N78-32256
NASA-CASE-HSC-12640-1	c74 N76-31998	NASA-CASE-HSC-14903-2	c27 N78-25216
NASA-CASE-HSC-12662-1	c33 N79-12331	NASA-CASE-HSC-14903-3	c27 N78-25217
NASA-CASE-HSC-12669-1	c44 N76-16621	NASA-CASE-HSC-14905-1	c37 N77-28487
NASA-CASE-HSC-12709-1	c33 N77-24375	NASA-CASE-HSC-14916-1	c33 N78-10375
NASA-CASE-HSC-12731-1	c37 N78-25426	NASA-CASE-HSC-14939-1	c32 N79-11264
NASA-CASE-HSC-12737-1	c34 N77-22423	NASA-CASE-HSC-15158-1	c14 N72-17325
NASA-CASE-HSC-12743-1	c32 N79-10263	NASA-CASE-HSC-15474-1	c15 N71-26162
NASA-CASE-HSC-12745-1	c33 N77-13338	NASA-CASE-HSC-15567-1	c33 N73-16918
NASA-CASE-HSC-13047-1	c31 N71-25434	NASA-CASE-HSC-15626-1	c14 N72-25411
NASA-CASE-HSC-13054	c54 N78-17677	NASA-CASE-HSC-16000-1	c37 N78-24544
NASA-CASE-HSC-13110-1	c08 N72-22163	NASA-CASE-HSC-16043-1	c37 N79-11402
NASA-CASE-HSC-13112	c03 N71-11057	NASA-CASE-HSC-16074-1	c27 N77-14262
NASA-CASE-HSC-13140	c05 N72-11085	NASA-CASE-HSC-16098-1	c51 N79-10693
NASA-CASE-HSC-13201-1	c07 N71-28429	NASA-CASE-HSC-16100-1	c32 N77-15233
NASA-CASE-HSC-13276-1	c14 N71-27058	NASA-CASE-HSC-16170-1	c32 N77-12248
NASA-CASE-HSC-13281	c31 N72-18859	NASA-CASE-HSC-16182-1	c54 N77-21847
NASA-CASE-HSC-13282-1	c05 N71-24729	NASA-CASE-HSC-16217-1	c18 N78-22146
NASA-CASE-HSC-13332-1	c14 N72-21408	NASA-CASE-HSC-16239-1	c37 N78-11399
NASA-CASE-HSC-13335-1	c06 N72-31140	NASA-CASE-HSC-16253-1	c32 N79-20297
NASA-CASE-HSC-13397-1	c21 N72-25595	NASA-CASE-HSC-16258-1	c45 N79-12584
NASA-CASE-HSC-13407-1	c10 N72-20225	NASA-CASE-HSC-16260-1	c51 N78-18674
NASA-CASE-HSC-13436-1	c05 N73-32015	NASA-CASE-HSC-16270-1	c37 N78-27423
NASA-CASE-HSC-13492-1	c10 N71-28860	NASA-CASE-HSC-16299-1	c45 N77-31668
NASA-CASE-HSC-13512-1	c15 N72-22485	NASA-CASE-HSC-16307-1	c25 N78-27232
NASA-CASE-HSC-13530-2	c23 N75-14834	NASA-CASE-HSC-16433-1	c52 N78-27750
NASA-CASE-HSC-13540-1	c05 N72-33096	NASA-CASE-HSC-16461-1	c33 N79-11313
NASA-CASE-HSC-13587-1	c15 N73-30459	NASA-CASE-HSC-16462-1	c32 N78-25274
NASA-CASE-HSC-13601-2	c54 N75-27759	NASA-CASE-HSC-16697-1	c33 N78-22298
NASA-CASE-HSC-13604-1	c05 N73-13114	NASA-CASE-HSC-16747-1	c33 N79-17138
NASA-CASE-HSC-13609-1	c05 N72-25122	NASA-CASE-HSC-16777-1	c51 N78-22589
NASA-CASE-HSC-13648	c05 N72-27103	NASA-CASE-HSC-16778-1	c51 N78-22589
NASA-CASE-HSC-13746-1	c10 N73-32143	NASA-CASE-HSC-16779-1	c51 N78-22586
NASA-CASE-HSC-13789-1	c11 N73-32152	NASA-CASE-HSC-16800-1	c32 N79-19194
NASA-CASE-HSC-13802-2	c35 N76-15431	NASA-CASE-HSC-16841-1	c51 N78-22590
NASA-CASE-HSC-13855-1	c35 N74-17885	NASA-CASE-HSC-16934-1	c24 N79-16923
NASA-CASE-HSC-13907-1	c10 N73-26230	NASA-CASE-HSC-16938-1	c37 N78-32431
NASA-CASE-HSC-13912-1	c32 N74-30524	NASA-CASE-HSC-16973-1	c37 N79-17224
NASA-CASE-HSC-13917-1	c05 N72-15098	NASA-CASE-HSC-17832-1	c33 N74-14956
NASA-CASE-HSC-13932-1	c62 N74-14920	NASA-CASE-HSC-18107-1	c35 N79-19319
NASA-CASE-HSC-13972-1	c52 N74-10975	NASA-CASE-HSC-18134-1	c37 N79-17225
NASA-CASE-HSC-13999-1	c52 N74-26626	NASA-CASE-HSC-18179-1	c20 N78-31162
NASA-CASE-HSC-14053-1	c60 N74-12888	NASA-CASE-HSC-19095-1	c37 N75-19683
NASA-CASE-HSC-14065-1	c32 N74-26654	NASA-CASE-HSC-19372-1	c39 N76-31562
NASA-CASE-HSC-14066-1	c33 N74-27705	NASA-CASE-HSC-19442-1	c74 N77-10899
NASA-CASE-HSC-14070-1	c32 N74-32598	NASA-CASE-HSC-19514-1	c37 N79-20377
NASA-CASE-HSC-14081-1	c35 N74-27860	NASA-CASE-HSC-19523-1	c31 N76-16245
NASA-CASE-HSC-14082-1	c60 N76-23850	NASA-CASE-HSC-19535-1	c37 N77-32499
NASA-CASE-HSC-14096-1	c74 N74-15095	NASA-CASE-HSC-19536-1	c37 N77-22482
NASA-CASE-HSC-14129-1	c33 N75-18479	NASA-CASE-HSC-19546-1	c37 N77-25536
NASA-CASE-HSC-14130-1	c33 N74-32711	NASA-CASE-HSC-19568-1	c34 N78-25350
NASA-CASE-HSC-14131-1	c33 N75-19515	NASA-CASE-HSC-19666-1	c37 N78-17383
NASA-CASE-HSC-14143-1	c77 N75-20139	NASA-CASE-HSC-19672-1	c38 N79-14398
NASA-CASE-HSC-14180-1	c52 N76-14757	NASA-CASE-HSC-19693-1	c26 N78-24333
NASA-CASE-HSC-14182-1	c27 N76-14264	NASA-CASE-HSC-19706-1	c09 N78-31129
NASA-CASE-HSC-14187-1	c35 N74-32879	NASA-CASE-HSC-90153-2	c05 N72-25120
NASA-CASE-HSC-14219-1	c32 N74-27612		
NASA-CASE-HSC-14240-1	c33 N75-14957	NASA-CASE-NPO-8835	c27 N78-33228
NASA-CASE-HSC-14245-1	c18 N75-27041	NASA-CASE-NPO-10003	c10 N71-26415

NUMBER INDEX

NASA-CASE-NPO-10034	c15 N71-17685	NASA-CASE-NPO-10625	c09 N71-26182
NASA-CASE-NPO-10037	c09 N71-19610	NASA-CASE-NPO-10629	c08 N72-18184
NASA-CASE-NPO-10046	c28 N72-17843	NASA-CASE-NPO-10633	c03 N72-28025
NASA-CASE-NPO-10051	c18 N71-24934	NASA-CASE-NPO-10634	c23 N72-25619
NASA-CASE-NPO-10064	c15 N71-17693	NASA-CASE-NPO-10636	c08 N72-25210
NASA-CASE-NPO-10066	c09 N71-18598	NASA-CASE-NPO-10637	c15 N72-12409
NASA-CASE-NPO-10068	c08 N71-19288	NASA-CASE-NPO-10646	c15 N71-28467
NASA-CASE-NPO-10070	c15 N71-27372	NASA-CASE-NPO-10649	c07 N71-28440
NASA-CASE-NPO-10096	c07 N71-24583	NASA-CASE-NPO-10671	c15 N72-20443
NASA-CASE-NPO-10109	c03 N71-11049	NASA-CASE-NPO-10677	c05 N72-11084
NASA-CASE-NPO-10112	c08 N71-12502	NASA-CASE-NPO-10679	c15 N72-21462
NASA-CASE-NPO-10117	c15 N71-15608	NASA-CASE-NPO-10680	c31 N73-14855
NASA-CASE-NPO-10118	c07 N71-24741	NASA-CASE-NPO-10682	c15 N70-34699
NASA-CASE-NPO-10122	c12 N71-17631	NASA-CASE-NPO-10691	c14 N71-26199
NASA-CASE-NPO-10123	c15 N71-24835	NASA-CASE-NPO-10694	c09 N72-20200
NASA-CASE-NPO-10138	c33 N71-16357	NASA-CASE-NPO-10700	c07 N71-33613
NASA-CASE-NPO-10140	c07 N71-24742	NASA-CASE-NPO-10701	c06 N71-28620
NASA-CASE-NPO-10141	c11 N71-24964	NASA-CASE-NPO-10704	c15 N72-20445
NASA-CASE-NPO-10143	c10 N71-26326	NASA-CASE-NPO-10711-1	c35 N71-21392
NASA-CASE-NPO-10144	c14 N71-17701	NASA-CASE-NPO-10714	c06 N69-31244
NASA-CASE-NPO-10150	c08 N71-24650	NASA-CASE-NPO-10716	c09 N71-24892
NASA-CASE-NPO-10151	c37 N78-17386	NASA-CASE-NPO-10721	c15 N72-27484
NASA-CASE-NPO-10158	c33 N71-16356	NASA-CASE-NPO-10722	c09 N72-20199
NASA-CASE-NPO-10166-1	c07 N73-22076	NASA-CASE-NPO-10737	c28 N72-11709
NASA-CASE-NPO-10166-2	c35 N76-16391	NASA-CASE-NPO-10743	c08 N72-21199
NASA-CASE-NPO-10169	c10 N71-24844	NASA-CASE-NPO-10745	c08 N72-22164
NASA-CASE-NPO-10173	c15 N71-24696	NASA-CASE-NPO-10747	c03 N72-22042
NASA-CASE-NPO-10174	c14 N71-18465	NASA-CASE-NPO-10748	c08 N72-20177
NASA-CASE-NPO-10175	c14 N71-18625	NASA-CASE-NPO-10753	c03 N72-26031
NASA-CASE-NPO-10185	c10 N71-26339	NASA-CASE-NPO-10755	c15 N71-27084
NASA-CASE-NPO-10188	c03 N71-20273	NASA-CASE-NPO-10758	c14 N73-14427
NASA-CASE-NPO-10189-1	c33 N77-21314	NASA-CASE-NPO-10760	c09 N72-25254
NASA-CASE-NPO-10194	c03 N71-20407	NASA-CASE-NPO-10764-1	c14 N73-14428
NASA-CASE-NPO-10198	c09 N71-24806	NASA-CASE-NPO-10764-2	c35 N75-25122
NASA-CASE-NPO-10199	c09 N72-17156	NASA-CASE-NPO-10765	c06 N72-20121
NASA-CASE-NPO-10201	c08 N71-18694	NASA-CASE-NPO-10767-1	c06 N73-33076
NASA-CASE-NPO-10214	c10 N71-26577	NASA-CASE-NPO-10767-2	c06 N72-27151
NASA-CASE-NPO-10230	c09 N71-12520	NASA-CASE-NPO-10768	c06 N71-27254
NASA-CASE-NPO-10231	c07 N71-26101	NASA-CASE-NPO-10768-2	c06 N72-27144
NASA-CASE-NPO-10233-1	c74 N78-33913	NASA-CASE-NPO-10769	c08 N72-11171
NASA-CASE-NPO-10234	c06 N72-17094	NASA-CASE-NPO-10774	c06 N72-17095
NASA-CASE-NPO-10242	c09 N71-24803	NASA-CASE-NPO-10778	c14 N72-11364
NASA-CASE-NPO-10244	c15 N72-26371	NASA-CASE-NPO-10781-1	c33 N77-21314
NASA-CASE-NPO-10250	c23 N71-16212	NASA-CASE-NPO-10790-1	c33 N77-21316
NASA-CASE-NPO-10251	c10 N71-27365	NASA-CASE-NPO-10796	c15 N71-27068
NASA-CASE-NPO-10271	c17 N71-16393	NASA-CASE-NPO-10808	c15 N71-27432
NASA-CASE-NPO-10298	c12 N71-17661	NASA-CASE-NPO-10810	c14 N71-27323
NASA-CASE-NPO-10300	c14 N71-17662	NASA-CASE-NPO-10811	c15 N71-34425
NASA-CASE-NPO-10301	c07 N72-11148	NASA-CASE-NPO-10812	c15 N73-13464
NASA-CASE-NPO-10302	c10 N71-26142	NASA-CASE-NPO-10817-1	c08 N73-30135
NASA-CASE-NPO-10303	c07 N72-22127	NASA-CASE-NPO-10821	c03 N71-19545
NASA-CASE-NPO-10309	c15 N69-23190	NASA-CASE-NPO-10828	c33 N72-17948
NASA-CASE-NPO-10311	c31 N71-15643	NASA-CASE-NPO-10831	c33 N72-20915
NASA-CASE-NPO-10316-1	c37 N77-22479	NASA-CASE-NPO-10832	c14 N72-21405
NASA-CASE-NPO-10320	c14 N71-17655	NASA-CASE-NPO-10844	c07 N72-20140
NASA-CASE-NPO-10331	c09 N71-26701	NASA-CASE-NPO-10851	c07 N71-24613
NASA-CASE-NPO-10337	c14 N71-15604	NASA-CASE-NPO-10857-1	c37 N77-22478
NASA-CASE-NPO-10342	c10 N71-33407	NASA-CASE-NPO-10862	c06 N72-22107
NASA-CASE-NPO-10343	c07 N71-27341	NASA-CASE-NPO-10863	c06 N70-11251
NASA-CASE-NPO-10344	c10 N71-26544	NASA-CASE-NPO-10863-2	c06 N72-25152
NASA-CASE-NPO-10348	c10 N71-12554	NASA-CASE-NPO-10866-1	c28 N79-14228
NASA-CASE-NPO-10351	c08 N71-12503	NASA-CASE-NPO-10870-1	c33 N77-22386
NASA-CASE-NPO-10373	c03 N71-18698	NASA-CASE-NPO-10872-1	c35 N79-16246
NASA-CASE-NPO-10388	c07 N71-24622	NASA-CASE-NPO-10883	c31 N72-22874
NASA-CASE-NPO-10401	c03 N72-20033	NASA-CASE-NPO-10890	c11 N73-12265
NASA-CASE-NPO-10404	c03 N71-12255	NASA-CASE-NPO-10893	c27 N73-22710
NASA-CASE-NPO-10412	c09 N71-28421	NASA-CASE-NPO-10985	c14 N73-20478
NASA-CASE-NPO-10416	c12 N71-27332	NASA-CASE-NPO-10998-1	c06 N73-32029
NASA-CASE-NPO-10417	c16 N71-33410	NASA-CASE-NPO-10999-1	c06 N73-32029
NASA-CASE-NPO-10431	c15 N71-29132	NASA-CASE-NPO-11001	c07 N72-21118
NASA-CASE-NPO-10440	c15 N72-21466	NASA-CASE-NPO-11002	c14 N72-22441
NASA-CASE-NPO-10447	c06 N70-11252	NASA-CASE-NPO-11012	c15 N72-11391
NASA-CASE-NPO-10467	c23 N71-26654	NASA-CASE-NPO-11013	c11 N72-22247
NASA-CASE-NPO-10468	c23 N71-33229	NASA-CASE-NPO-11016	c08 N72-31226
NASA-CASE-NPO-10539	c07 N71-11285	NASA-CASE-NPO-11018	c08 N72-21200
NASA-CASE-NPO-10542	c09 N72-27228	NASA-CASE-NPO-11021	c03 N72-20032
NASA-CASE-NPO-10548	c16 N71-24831	NASA-CASE-NPO-11023	c09 N72-17155
NASA-CASE-NPO-10556	c14 N71-27185	NASA-CASE-NPO-11031	c07 N71-33606
NASA-CASE-NPO-10557	c27 N78-17214	NASA-CASE-NPO-11036	c15 N72-24522
NASA-CASE-NPO-10560	c08 N72-22166	NASA-CASE-NPO-11059	c15 N72-17458
NASA-CASE-NPO-10567	c08 N71-24633	NASA-CASE-NPO-11064	c07 N72-11150
NASA-CASE-NPO-10575	c03 N72-25019	NASA-CASE-NPO-11078	c09 N72-25262
NASA-CASE-NPO-10591	c03 N72-22041	NASA-CASE-NPO-11082	c08 N72-22167
NASA-CASE-NPO-10595	c10 N71-25917	NASA-CASE-NPO-11087	c23 N71-29125
NASA-CASE-NPO-10596	c06 N71-25929	NASA-CASE-NPO-11088	c08 N71-29034
NASA-CASE-NPO-10606	c15 N72-25451	NASA-CASE-NPO-11091	c18 N72-22567
NASA-CASE-NPO-10607	c09 N71-27232	NASA-CASE-NPO-11095	c15 N72-25455
NASA-CASE-NPO-10617-1	c35 N74-22095	NASA-CASE-NPO-11103	c14 N72-21406
NASA-CASE-NPO-10619-1	c35 N77-21393	NASA-CASE-NPO-11103-1	c35 N77-27367

NUMBER INDEX

NASA-CASE-NPO-11104
 NASA-CASE-NPO-11106
 NASA-CASE-NPO-11118
 NASA-CASE-NPO-11120-1
 NASA-CASE-NPO-11129
 NASA-CASE-NPO-11130
 NASA-CASE-NPO-11133
 NASA-CASE-NPO-11134
 NASA-CASE-NPO-11138
 NASA-CASE-NPO-11140
 NASA-CASE-NPO-11147
 NASA-CASE-NPO-11150
 NASA-CASE-NPO-11156-2
 NASA-CASE-NPO-11161
 NASA-CASE-NPO-11177
 NASA-CASE-NPO-11190
 NASA-CASE-NPO-11191-1
 NASA-CASE-NPO-11194
 NASA-CASE-NPO-11201
 NASA-CASE-NPO-11202
 NASA-CASE-NPO-11203
 NASA-CASE-NPO-11210
 NASA-CASE-NPO-11213
 NASA-CASE-NPO-11222
 NASA-CASE-NPO-11239
 NASA-CASE-NPO-11243
 NASA-CASE-NPO-11253
 NASA-CASE-NPO-11264
 NASA-CASE-NPO-11282
 NASA-CASE-NPO-11283
 NASA-CASE-NPO-11291-1
 NASA-CASE-NPO-11302-1
 NASA-CASE-NPO-11302-2
 NASA-CASE-NPO-11304
 NASA-CASE-NPO-11307-1
 NASA-CASE-NPO-11311
 NASA-CASE-NPO-11317-2
 NASA-CASE-NPO-11322
 NASA-CASE-NPO-11330
 NASA-CASE-NPO-11333
 NASA-CASE-NPO-11336-1
 NASA-CASE-NPO-11338
 NASA-CASE-NPO-11340
 NASA-CASE-NPO-11342
 NASA-CASE-NPO-11358
 NASA-CASE-NPO-11361
 NASA-CASE-NPO-11366
 NASA-CASE-NPO-11369
 NASA-CASE-NPO-11371
 NASA-CASE-NPO-11373
 NASA-CASE-NPO-11377
 NASA-CASE-NPO-11387
 NASA-CASE-NPO-11388
 NASA-CASE-NPO-11403-1
 NASA-CASE-NPO-11406
 NASA-CASE-NPO-11417
 NASA-CASE-NPO-11418-1
 NASA-CASE-NPO-11426
 NASA-CASE-NPO-11429-1
 NASA-CASE-NPO-11432-2
 NASA-CASE-NPO-11433
 NASA-CASE-NPO-11437
 NASA-CASE-NPO-11456
 NASA-CASE-NPO-11458
 NASA-CASE-NPO-11458A
 NASA-CASE-NPO-11479
 NASA-CASE-NPO-11481
 NASA-CASE-NPO-11493
 NASA-CASE-NPO-11497
 NASA-CASE-NPO-11510-1
 NASA-CASE-NPO-11515-1
 NASA-CASE-NPO-11548
 NASA-CASE-NPO-11556
 NASA-CASE-NPO-11559
 NASA-CASE-NPO-11569
 NASA-CASE-NPO-11572
 NASA-CASE-NPO-11593-1
 NASA-CASE-NPO-11609-2
 NASA-CASE-NPO-11623-1
 NASA-CASE-NPO-11628-1
 NASA-CASE-NPO-11630
 NASA-CASE-NPO-11631
 NASA-CASE-NPO-11659-1
 NASA-CASE-NPO-11661
 NASA-CASE-NPO-11682-1
 NASA-CASE-NPO-11686
 NASA-CASE-NPO-11703-1
 NASA-CASE-NPO-11707
 NASA-CASE-NPO-11738-1

c08 772-22165
 c14 770-34697
 c03 772-25021
 c34 774-18552
 c09 772-33204
 c08 772-20176
 c10 772-20223
 c09 772-21246
 c03 770-34646
 c15 772-17455
 c14 772-27408
 c35 778-17359
 c33 775-31331
 c08 772-25207
 c15 772-17453
 c03 771-34044
 c33 777-22386
 c08 772-25209
 c14 772-27409
 c15 772-25450
 c10 772-20224
 c11 772-20244
 c15 773-20514
 c15 772-25456
 c14 773-12446
 c07 772-20154
 c09 772-17157
 c07 772-25174
 c10 773-16205
 c09 772-25260
 c14 773-30388
 c07 773-13149
 c32 774-10132
 c14 773-26430
 c10 773-30205
 c14 772-25414
 c36 774-13205
 c06 772-25146
 c33 773-26958
 c08 772-22162
 c76 779-16678
 c08 772-25208
 c15 772-33477
 c09 772-25248
 c07 772-25172
 c07 772-32169
 c11 773-26238
 c15 773-13467
 c08 773-12177
 c13 772-25323
 c15 773-27406
 c14 773-14429
 c03 772-23048
 c33 777-22386
 c08 773-12175
 c15 773-24513
 c14 773-13420
 c07 773-26119
 c74 777-21941
 c35 774-15090
 c18 771-31140
 c16 772-28521
 c08 773-26176
 c28 772-23810
 c20 778-32179
 c15 773-13462
 c21 773-13644
 c14 773-12447
 c08 773-25206
 c33 777-21315
 c33 777-13315
 c07 773-26118
 c12 772-25292
 c28 773-24784
 c10 773-26229
 c07 773-16121
 c07 773-28012
 c27 777-31308
 c71 774-31148
 c07 773-30113
 c08 772-33172
 c10 773-12244
 c35 774-11283
 c07 773-14130
 c35 774-15127
 c14 773-25462
 c10 773-32144
 c07 773-25161
 c09 773-30185

NASA-CASE-NPO-11743-1
 NASA-CASE-NPO-11749
 NASA-CASE-NPO-11751
 NASA-CASE-NPO-11758-1
 NASA-CASE-NPO-11771
 NASA-CASE-NPO-11775
 NASA-CASE-NPO-11806-1
 NASA-CASE-NPO-11820-1
 NASA-CASE-NPO-11821-1
 NASA-CASE-NPO-11850-1
 NASA-CASE-NPO-11856-1
 NASA-CASE-NPO-11861-1
 NASA-CASE-NPO-11868
 NASA-CASE-NPO-11880
 NASA-CASE-NPO-11905-1
 NASA-CASE-NPO-11919-1
 NASA-CASE-NPO-11921-1
 NASA-CASE-NPO-11932-1
 NASA-CASE-NPO-11941-1
 NASA-CASE-NPO-11942-1
 NASA-CASE-NPO-11945-1
 NASA-CASE-NPO-11948-1
 NASA-CASE-NPO-11951-1
 NASA-CASE-NPO-11954-1
 NASA-CASE-NPO-11961-1
 NASA-CASE-NPO-11962-1
 NASA-CASE-NPO-11966-1
 NASA-CASE-NPO-11975-1
 NASA-CASE-NPO-11978
 NASA-CASE-NPO-12000
 NASA-CASE-NPO-12015
 NASA-CASE-NPO-12061-1
 NASA-CASE-NPO-12070-1
 NASA-CASE-NPO-12072
 NASA-CASE-NPO-12106
 NASA-CASE-NPO-12107
 NASA-CASE-NPO-12109
 NASA-CASE-NPO-12119-1
 NASA-CASE-NPO-12122-1
 NASA-CASE-NPO-12127-1
 NASA-CASE-NPO-12128-1
 NASA-CASE-NPO-12130-1
 NASA-CASE-NPO-12134-1
 NASA-CASE-NPO-12142-1
 NASA-CASE-NPO-12148-1
 NASA-CASE-NPO-13044-1
 NASA-CASE-NPO-13050-1
 NASA-CASE-NPO-13058-1
 NASA-CASE-NPO-13059-1
 NASA-CASE-NPO-13063-1
 NASA-CASE-NPO-13064-1
 NASA-CASE-NPO-13065-1
 NASA-CASE-NPO-13067-1
 NASA-CASE-NPO-13081-1
 NASA-CASE-NPO-13086-1
 NASA-CASE-NPO-13087-2
 NASA-CASE-NPO-13091-1
 NASA-CASE-NPO-13096-1
 NASA-CASE-NPO-13103-1
 NASA-CASE-NPO-13105-1
 NASA-CASE-NPO-13112-1
 NASA-CASE-NPO-13114-2
 NASA-CASE-NPO-13120-1
 NASA-CASE-NPO-13121-1
 NASA-CASE-NPO-13125-1
 NASA-CASE-NPO-13127-1
 NASA-CASE-NPO-13131-1
 NASA-CASE-NPO-13138-1
 NASA-CASE-NPO-13139-1
 NASA-CASE-NPO-13140-1
 NASA-CASE-NPO-13147-1
 NASA-CASE-NPO-13157-1
 NASA-CASE-NPO-13159-1
 NASA-CASE-NPO-13160-1
 NASA-CASE-NPO-13170-1
 NASA-CASE-NPO-13171-1
 NASA-CASE-NPO-13175-1
 NASA-CASE-NPO-13201-1
 NASA-CASE-NPO-13205-1
 NASA-CASE-NPO-13214-1
 NASA-CASE-NPO-13215-1
 NASA-CASE-NPO-13217-1
 NASA-CASE-NPO-13231-1
 NASA-CASE-NPO-13237-1
 NASA-CASE-NPO-13247-1
 NASA-CASE-NPO-13253-1
 NASA-CASE-NPO-13263-1
 NASA-CASE-NPO-13274-1
 NASA-CASE-NPO-13281-1

c28 774-27425
 c14 773-28486
 c07 773-24176
 c31 774-23065
 c03 773-20040
 c26 772-28761
 c44 774-19693
 c32 774-19788
 c08 773-26175
 c32 774-12912
 c36 774-15145
 c36 774-20009
 c10 773-20254
 c28 774-24783
 c33 774-12887
 c35 774-11284
 c32 774-30523
 c35 774-23040
 c10 773-27171
 c33 773-32818
 c36 776-18427
 c33 774-32712
 c37 774-21065
 c35 778-29421
 c44 776-18643
 c33 774-10194
 c33 774-17928
 c28 774-33209
 c31 778-17238
 c27 772-25699
 c27 773-16764
 c27 776-16228
 c28 773-32606
 c28 772-22772
 c09 773-15235
 c08 771-27255
 c11 772-22245
 c52 775-15270
 c24 776-14203
 c91 774-13130
 c14 773-32317
 c25 775-14844
 c33 776-31409
 c38 776-28563
 c44 774-27515
 c35 774-15094
 c36 775-15029
 c37 777-22480
 c37 776-20480
 c25 776-18245
 c33 779-11374
 c52 774-26625
 c60 776-18800
 c33 774-22814
 c15 773-12495
 c44 776-31666
 c09 773-12214
 c37 777-22480
 c32 774-20811
 c37 774-21060
 c73 774-26767
 c73 778-28913
 c27 776-15311
 c73 777-18891
 c33 775-19519
 c35 774-23040
 c36 775-19652
 c33 774-17927
 c60 776-21914
 c32 775-24982
 c36 777-25502
 c37 774-32918
 c33 774-17928
 c35 774-18090
 c35 776-14430
 c32 774-11000
 c36 775-31427
 c37 775-15050
 c31 774-32917
 c35 775-25123
 c35 775-25123
 c32 775-26194
 c45 775-27585
 c44 776-18641
 c76 779-16678
 c37 775-18573
 c12 775-24774
 c25 779-10163
 c37 775-13266

NUMBER INDEX

NASA-CASE-NPO-13282	c38	N78-17396	NASA-CASE-NPO-13687-1	c35	N78-18391
NASA-CASE-NPO-13283	c38	N78-17395	NASA-CASE-NPO-13690-1	c27	N78-19302
NASA-CASE-NPO-13292-1	c32	N75-15854	NASA-CASE-NPO-13690-2	c27	N79-14213
NASA-CASE-NPO-13303-1	c20	N75-24837	NASA-CASE-NPO-13690-3	c27	N78-25219
NASA-CASE-NPO-13308-1	c36	N75-30524	NASA-CASE-NPO-13691-1	c43	N79-17288
NASA-CASE-NPO-13313-1	c54	N75-27761	NASA-CASE-NPO-13707-1	c74	N77-28933
NASA-CASE-NPO-13321-1	c32	N75-26195	NASA-CASE-NPO-13722-1	c74	N77-22951
NASA-CASE-NPO-13327-1	c35	N75-23910	NASA-CASE-NPO-13731-1	c39	N78-10493
NASA-CASE-NPO-13342-1	c37	N76-16446	NASA-CASE-NPO-13732-1	c44	N79-10513
NASA-CASE-NPO-13342-2	c44	N76-29700	NASA-CASE-NPO-13734-1	c44	N78-10554
NASA-CASE-NPO-13345-1	c37	N75-19684	NASA-CASE-NPO-13736-1	c44	N77-32583
NASA-CASE-NPO-13346-1	c36	N76-29575	NASA-CASE-NPO-13753-1	c32	N77-20289
NASA-CASE-NPO-13348-1	c33	N75-31332	NASA-CASE-NPO-13756-1	c35	N76-14434
NASA-CASE-NPO-13360-1	c37	N75-25185	NASA-CASE-NPO-13759-1	c74	N78-17867
NASA-CASE-NPO-13374-1	c33	N75-19524	NASA-CASE-NPO-13763-1	c44	N78-33526
NASA-CASE-NPO-13385-1	c33	N76-18345	NASA-CASE-NPO-13764-1	c27	N78-17215
NASA-CASE-NPO-13386-1	c54	N75-27758	NASA-CASE-NPO-13772-1	c35	N78-10429
NASA-CASE-NPO-13388-1	c35	N76-16390	NASA-CASE-NPO-13792-1	c35	N77-32455
NASA-CASE-NPO-13391-1	c34	N76-27515	NASA-CASE-NPO-13798-1	c37	N77-25535
NASA-CASE-NPO-13396-1	c35	N76-18401	NASA-CASE-NPO-13801-1	c36	N78-18410
NASA-CASE-NPO-13402-1	c37	N76-18457	NASA-CASE-NPO-13802-1	c71	N78-10837
NASA-CASE-NPO-13422-1	c60	N76-14818	NASA-CASE-NPO-13804-1	c35	N77-19390
NASA-CASE-NPO-13423-1	c33	N75-31329	NASA-CASE-NPO-13808-1	c35	N78-15461
NASA-CASE-NPO-13426-1	c33	N75-31330	NASA-CASE-NPO-13810-1	c44	N77-32582
NASA-CASE-NPO-13428-1	c60	N77-12721	NASA-CASE-NPO-13812-1	c33	N77-30365
NASA-CASE-NPO-13435-1	c31	N76-14284	NASA-CASE-NPO-13813-1	c44	N78-31526
NASA-CASE-NPO-13436-1	c37	N76-20480	NASA-CASE-NPO-13817-1	c44	N79-11471
NASA-CASE-NPO-13443-1	c76	N76-20994	NASA-CASE-NPO-13821-1	c44	N78-28594
NASA-CASE-NPO-13447-1	c60	N77-12721	NASA-CASE-NPO-13823-1	c37	N77-17466
NASA-CASE-NPO-13449-1	c36	N75-32441	NASA-CASE-NPO-13828-1	c37	N79-11405
NASA-CASE-NPO-13451-1	c33	N76-14373	NASA-CASE-NPO-13836-1	c32	N78-15323
NASA-CASE-NPO-13459-1	c31	N77-10229	NASA-CASE-NPO-13839-1	c31	N78-25256
NASA-CASE-NPO-13462-1	c35	N76-24524	NASA-CASE-NPO-13847-2	c85	N79-17747
NASA-CASE-NPO-13464-1	c44	N76-18642	NASA-CASE-NPO-13848-2	c85	N79-17747
NASA-CASE-NPO-13464-2	c44	N76-29704	NASA-CASE-NPO-13858-1	c28	N79-11231
NASA-CASE-NPO-13465-1	c32	N76-31372	NASA-CASE-NPO-13859-1	c28	N79-11231
NASA-CASE-NPO-13474-1	c45	N76-21742	NASA-CASE-NPO-13862-1	c35	N79-10391
NASA-CASE-NPO-13479-1	c35	N77-10492	NASA-CASE-NPO-13867-1	c27	N78-14164
NASA-CASE-NPO-13482-1	c44	N78-13526	NASA-CASE-NPO-13872-1	c33	N78-10377
NASA-CASE-NPO-13490-1	c36	N76-31512	NASA-CASE-NPO-13886-1	c32	N78-24391
NASA-CASE-NPO-13497-1	c44	N76-14602	NASA-CASE-NPO-13904-1	c25	N79-11152
NASA-CASE-NPO-13504-1	c33	N75-30430	NASA-CASE-NPO-13906-1	c54	N77-32723
NASA-CASE-NPO-13506-1	c35	N76-15435	NASA-CASE-NPO-13909-1	c33	N78-25319
NASA-CASE-NPO-13510-1	c44	N77-32581	NASA-CASE-NPO-13913-1	c52	N79-12694
NASA-CASE-NPO-13512-1	c33	N77-10428	NASA-CASE-NPO-13914-1	c44	N78-31526
NASA-CASE-NPO-13519-1	c33	N76-19338	NASA-CASE-NPO-13918-1	c76	N79-11920
NASA-CASE-NPO-13528-1	c09	N77-10071	NASA-CASE-NPO-13921-1	c44	N79-14526
NASA-CASE-NPO-13531-1	c36	N76-24553	NASA-CASE-NPO-13930-1	c52	N79-14749
NASA-CASE-NPO-13532-2	c36	N78-25409	NASA-CASE-NPO-13935-1	c52	N79-14751
NASA-CASE-NPO-13535-1	c37	N76-31524	NASA-CASE-NPO-13937-1	c44	N78-31527
NASA-CASE-NPO-13540-1	c35	N77-14409	NASA-CASE-NPO-13941-1	c32	N79-10262
NASA-CASE-NPO-13541-1	c37	N79-14383	NASA-CASE-NPO-13944-1	c52	N79-14751
NASA-CASE-NPO-13543-1	c32	N77-12240	NASA-CASE-NPO-13945-1	c36	N78-27402
NASA-CASE-NPO-13544-1	c36	N76-18428	NASA-CASE-NPO-13948-1	c35	N77-28470
NASA-CASE-NPO-13545-1	c32	N77-12240	NASA-CASE-NPO-13948-1	c35	N78-25391
NASA-CASE-NPO-13550-1	c36	N77-26477	NASA-CASE-NPO-13953-1	c51	N78-22587
NASA-CASE-NPO-13553-1	c33	N76-32457	NASA-CASE-NPO-13958-1	c25	N79-11151
NASA-CASE-NPO-13560-1	c44	N77-10636	NASA-CASE-NPO-13969-2	c76	N77-30984
NASA-CASE-NPO-13561-1	c44	N77-10636	NASA-CASE-NPO-13970-1	c33	N79-20315
NASA-CASE-NPO-13566-1	c25	N77-32255	NASA-CASE-NPO-13982-1	c32	N79-14267
NASA-CASE-NPO-13567-1	c44	N76-29701	NASA-CASE-NPO-13993-1	c72	N79-13826
NASA-CASE-NPO-13568-1	c32	N76-21365	NASA-CASE-NPO-13999-1	c35	N78-18395
NASA-CASE-NPO-13569-2	c35	N79-14348	NASA-CASE-NPO-14000-1	c33	N78-22299
NASA-CASE-NPO-13579-1	c44	N78-17460	NASA-CASE-NPO-14005-1	c71	N79-20827
NASA-CASE-NPO-13579-2	c44	N77-20565	NASA-CASE-NPO-14009-1	c32	N79-13214
NASA-CASE-NPO-13579-3	c44	N77-20566	NASA-CASE-NPO-14014-1	c37	N79-10420
NASA-CASE-NPO-13579-4	c44	N79-14529	NASA-CASE-NPO-14019-1	c32	N79-14268
NASA-CASE-NPO-13581-2	c44	N78-31525	NASA-CASE-NPO-14021-1	c27	N77-32313
NASA-CASE-NPO-13587-1	c32	N77-32342	NASA-CASE-NPO-14022-1	c32	N78-31321
NASA-CASE-NPO-13604-1	c35	N76-31490	NASA-CASE-NPO-14035-1	c32	N78-18266
NASA-CASE-NPO-13606-1	c35	N75-19627	NASA-CASE-NPO-14054-1	c32	N79-14278
NASA-CASE-NPO-13613-1	c37	N76-29590	NASA-CASE-NPO-14056-1	c33	N77-32402
NASA-CASE-NPO-13614-1	c35	N75-19628	NASA-CASE-NPO-14058-1	c44	N79-18443
NASA-CASE-NPO-13619-1	c37	N78-16369	NASA-CASE-NPO-14066-1	c44	N79-20496
NASA-CASE-NPO-13620-1	c27	N77-30236	NASA-CASE-NPO-14068-1	c44	N78-19609
NASA-CASE-NPO-13641-1	c32	N77-24340	NASA-CASE-NPO-14073-1	c52	N78-25762
NASA-CASE-NPO-13643-1	c52	N76-29896	NASA-CASE-NPO-14078-1	c76	N78-13917
NASA-CASE-NPO-13644-1	c52	N76-29895	NASA-CASE-NPO-14079-1	c35	N79-12416
NASA-CASE-NPO-13652-1	c44	N77-28585	NASA-CASE-NPO-14092-1	c52	N79-19678
NASA-CASE-NPO-13652-2	c44	N79-17314	NASA-CASE-NPO-14093-1	c74	N78-22891
NASA-CASE-NPO-13652-3	c37	N78-13441	NASA-CASE-NPO-14096-1	c44	N78-28625
NASA-CASE-NPO-13652-3	c44	N78-25560	NASA-CASE-NPO-14100-1	c44	N79-12541
NASA-CASE-NPO-13663-1	c35	N77-14406	NASA-CASE-NPO-14103-1	c28	N78-31255
NASA-CASE-NPO-13666-1	c27	N77-13217	NASA-CASE-NPO-14109-1	c28	N79-10227
NASA-CASE-NPO-13671-1	c37	N77-31497	NASA-CASE-NPO-14110-1	c28	N79-10225
NASA-CASE-NPO-13673-1	c71	N77-26919	NASA-CASE-NPO-14124-1	c46	N78-17529
NASA-CASE-NPO-13675-1	c44	N77-32580	NASA-CASE-NPO-14126-1	c44	N79-11470
NASA-CASE-NPO-13676-1	c60	N79-20751	NASA-CASE-NPO-14130-1	c34	N79-20335
NASA-CASE-NPO-13683-1	c35	N77-14411	NASA-CASE-NPO-14134-1	c71	N78-19898

NUMBER INDEX

NASA-CASE-NPO-14140-1	c31	N78-24387	NASA-CASE-XAC-00088	c02	N71-29128
NASA-CASE-NPO-14143-1	c25	N79-10169	NASA-CASE-XAC-00060	c09	N70-39915
NASA-CASE-NPO-14162-1	c35	N78-22347	NASA-CASE-XAC-00073	c14	N70-34813
NASA-CASE-NPO-14163-1	c37	N78-22376	NASA-CASE-XAC-00074	c15	N70-34817
NASA-CASE-NPO-14167-1	c35	N78-22347	NASA-CASE-XAC-00086	c09	N70-33182
NASA-CASE-NPO-14169-1	c35	N78-22347	NASA-CASE-XAC-00139	c02	N70-34856
NASA-CASE-NPO-14170	c37	N78-17391	NASA-CASE-XAC-00319	c25	N70-41628
NASA-CASE-NPO-14173-1	c04	N79-10039	NASA-CASE-XAC-00399	c11	N70-34815
NASA-CASE-NPO-14174-1	c74	N79-20856	NASA-CASE-XAC-00404	c08	N70-40125
NASA-CASE-NPO-14191-1	c46	N79-20555	NASA-CASE-XAC-00405	c05	N70-41819
NASA-CASE-NPO-14192-1	c46	N79-20556	NASA-CASE-XAC-00435	c09	N70-35440
NASA-CASE-NPO-14199-1	c44	N78-22470	NASA-CASE-XAC-00472	c15	N70-40180
NASA-CASE-NPO-14200-1	c44	N78-22470	NASA-CASE-XAC-00648	c14	N70-40400
NASA-CASE-NPO-14205-1	c44	N78-27541	NASA-CASE-XAC-00731	c11	N71-15960
NASA-CASE-NPO-14219-1	c35	N78-22348	NASA-CASE-XAC-00812	c14	N71-15598
NASA-CASE-NPO-14220-1	c37	N78-25430	NASA-CASE-XAC-00942	c10	N71-16042
NASA-CASE-NPO-14221-1	c37	N78-25431	NASA-CASE-XAC-01101	c14	N70-41957
NASA-CASE-NPO-14223-1	c25	N79-10168	NASA-CASE-XAC-01158	c15	N71-23051
NASA-CASE-NPO-14224-1	c32	N79-10271	NASA-CASE-XAC-01404	c05	N70-41581
NASA-CASE-NPO-14231-1	c46	N79-19521	NASA-CASE-XAC-01591	c31	N71-17729
NASA-CASE-NPO-14233-1	c25	N78-27233	NASA-CASE-XAC-01662	c14	N71-23037
NASA-CASE-NPO-14237-1	c37	N78-24554	NASA-CASE-XAC-01677	c09	N71-20816
NASA-CASE-NPO-14248-1	c32	N78-24402	NASA-CASE-XAC-02058	c02	N71-16087
NASA-CASE-NPO-14253-1	c31	N79-10246	NASA-CASE-XAC-02405	c09	N71-16089
NASA-CASE-NPO-14254-1	c36	N78-22359	NASA-CASE-XAC-02407	c14	N69-27423
NASA-CASE-NPO-14260	c28	N78-17230	NASA-CASE-XAC-02807	c09	N71-23021
NASA-CASE-NPO-14272-1	c25	N78-33164	NASA-CASE-XAC-02877	c14	N70-41681
NASA-CASE-NPO-14273-1	c37	N79-14388	NASA-CASE-XAC-02970	c14	N69-39896
NASA-CASE-NPO-14295-1	c76	N78-24952	NASA-CASE-XAC-02981	c14	N71-21072
NASA-CASE-NPO-14296-1	c37	N78-25432	NASA-CASE-XAC-03107	c23	N71-16098
NASA-CASE-NPO-14297-1	c76	N79-10918	NASA-CASE-XAC-03392	c03	N70-41954
NASA-CASE-NPO-14298-1	c76	N79-10917	NASA-CASE-XAC-03740	c14	N71-26135
NASA-CASE-NPO-14303-1	c44	N78-28626	NASA-CASE-XAC-03777	c10	N71-15909
NASA-CASE-NPO-14305-1	c44	N78-28626	NASA-CASE-XAC-04030	c10	N71-19472
NASA-CASE-NPO-14311-1	c32	N79-14276	NASA-CASE-XAC-04031	c08	N71-18594
NASA-CASE-NPO-14328-1	c32	N79-14272	NASA-CASE-XAC-04458	c14	N71-24232
NASA-CASE-NPO-14340-1	c25	N79-10167	NASA-CASE-XAC-04885	c14	N71-23790
NASA-CASE-NPO-14342-1	c25	N79-10169	NASA-CASE-XAC-04886-1	c14	N71-20439
NASA-CASE-NPO-14350-1	c33	N78-27330	NASA-CASE-XAC-05333	c11	N71-22875
NASA-CASE-NPO-14362-1	c35	N79-10392	NASA-CASE-XAC-05422	c04	N71-23185
NASA-CASE-NPO-14363-1	c76	N79-14908	NASA-CASE-XAC-05462-2	c10	N72-17171
NASA-CASE-NPO-14372-1	c35	N79-17196	NASA-CASE-XAC-05506-1	c24	N71-16095
NASA-CASE-NPO-14381-1	c31	N78-24387	NASA-CASE-XAC-05632	c32	N71-23971
NASA-CASE-NPO-14382-1	c25	N78-22186	NASA-CASE-XAC-05695	c25	N71-16073
NASA-CASE-NPO-14384-1	c25	N78-22187	NASA-CASE-XAC-05706	c05	N71-12342
NASA-CASE-NPO-14388-1	c37	N79-17217	NASA-CASE-XAC-05902	c11	N71-18578
NASA-CASE-NPO-14395-1	c37	N79-12446	NASA-CASE-XAC-06029-1	c31	N71-24813
NASA-CASE-NPO-14406-1	c31	N79-10245	NASA-CASE-XAC-06302	c08	N71-19763
NASA-CASE-NPO-14416-1	c44	N79-18446	NASA-CASE-XAC-06956	c15	N71-21177
NASA-CASE-NPO-14424-1	c33	N78-28340	NASA-CASE-XAC-07043	c05	N71-23161
NASA-CASE-NPO-14426-1	c33	N79-17134	NASA-CASE-XAC-08494	c30	N71-15990
NASA-CASE-NPO-14435-1	c33	N79-18224	NASA-CASE-XAC-08972	c02	N71-20570
NASA-CASE-NPO-14444-1	c32	N79-18155	NASA-CASE-XAC-08981	c09	N69-39897
NASA-CASE-NPO-14467-1	c44	N79-10529	NASA-CASE-XAC-09489-1	c15	N71-26673
NASA-CASE-NPO-14473-1	c37	N79-10427	NASA-CASE-XAC-10019	c15	N71-23809
NASA-CASE-NPO-14474-1	c26	N78-27255	NASA-CASE-XAC-10607	c10	N71-23669
NASA-CASE-NPO-14477-1	c28	N79-10224	NASA-CASE-XAC-10608-1	c09	N71-12517
NASA-CASE-NPO-14480-1	c32	N78-25275	NASA-CASE-XAC-10768	c09	N71-18830
NASA-CASE-NPO-14490-1	c44	N79-18445	NASA-CASE-XAC-10770-1	c16	N71-24828
NASA-CASE-NPO-14501-1	c35	N78-27385	NASA-CASE-XAC-11225	c14	N69-27486
NASA-CASE-NPO-14502-1	c35	N79-19317	NASA-CASE-XAC-01547	c05	N69-21473
NASA-CASE-NPO-14513-1	c31	N79-20283	NASA-CASE-XAC-03786	c09	N69-21313
NASA-CASE-NPO-14519-1	c32	N79-17068	NASA-CASE-XER-07894	c09	N71-18721
NASA-CASE-NPO-14521-1	c54	N79-20746	NASA-CASE-XER-07895	c26	N72-25679
NASA-CASE-NPO-14525-1	c32	N79-19195	NASA-CASE-XER-07896-2	c23	N72-22673
NASA-CASE-NPO-14536-1	c32	N79-14277	NASA-CASE-XER-08476-1	c26	N72-17820
NASA-CASE-NPO-14554-1	c60	N79-14797	NASA-CASE-XER-09213	c07	N71-12390
NASA-CASE-NPO-14556-1	c36	N79-21336	NASA-CASE-XER-09519	c14	N71-18483
NASA-CASE-NPO-14579-1	c32	N79-14272	NASA-CASE-XER-09521	c09	N72-12136
NASA-CASE-NPO-14588-1	c32	N79-17067	NASA-CASE-XER-11019	c09	N71-23598
NASA-CASE-NPO-14590-1	c32	N79-14272	NASA-CASE-XER-11046	c09	N72-22203
NASA-CASE-NPO-14619-1	c44	N79-20513	NASA-CASE-XER-11046-2	c33	N74-22864
NASA-CASE-NPO-14635-1	c44	N79-17315	NASA-CASE-XER-11203	c14	N71-28994
NASA-CASE-NPO-14640-1	c31	N79-10246	NASA-CASE-XER-00181	c21	N70-33279
NASA-CASE-NPO-14657-1	c74	N79-17683	NASA-CASE-XER-00756	c02	N71-13421
NASA-CASE-NPO-144340-1	c33	N78-28340	NASA-CASE-XER-00811	c15	N70-36901
NASA-CASE-NUC-10107-1	c33	N74-17930	NASA-CASE-XER-00929	c31	N70-34966
NASA-CASE-BE-ARC-10329-2	c52	N76-30793	NASA-CASE-XER-02007	c12	N71-24692
NASA-CASE-WLP-10002	c15	N72-17451	NASA-CASE-XER-03107	c09	N71-19449
NASA-CASE-WOO-00428-1	c32	N79-19186	NASA-CASE-XER-03802	c33	N71-23085
NASA-CASE-WOO-00625	c37	N78-17385	NASA-CASE-XER-04104	c03	N70-42073
NASA-CASE-XAC-00001	c15	N71-28952	NASA-CASE-XER-04147	c11	N71-10748
NASA-CASE-XAC-00030	c14	N70-34820	NASA-CASE-XER-05302	c15	N71-23254
NASA-CASE-XAC-00042	c14	N70-34816	NASA-CASE-XER-05421	c15	N71-22994
			NASA-CASE-XER-05637	c09	N71-19480
			NASA-CASE-XER-07172	c05	N71-27234

NUMBER INDEX

NASA-CASE-XPR-07658-1	c05 N71-26293	NASA-CASE-IGS-03058	c10 N71-19547
NASA-CASE-XPR-08403	c05 N71-11202	NASA-CASE-IGS-03095	c09 N69-27463
NASA-CASE-XPR-09479	c14 N69-27503	NASA-CASE-IGS-03120	c15 N71-24047
NASA-CASE-XPR-10856	c05 N71-11189	NASA-CASE-IGS-03230	c14 N71-23401
		NASA-CASE-IGS-03303	c08 N71-18595
NASA-CASE-IGS-00131	c09 N70-38995	NASA-CASE-IGS-03304	c09 N71-22988
NASA-CASE-IGS-00174	c08 N70-34743	NASA-CASE-IGS-03351	c31 N71-16081
NASA-CASE-IGS-00260	c31 N70-37924	NASA-CASE-IGS-03390	c03 N71-23187
NASA-CASE-IGS-00359	c14 N70-34158	NASA-CASE-IGS-03427	c10 N71-23029
NASA-CASE-IGS-00373	c23 N71-15978	NASA-CASE-IGS-03429	c03 N69-21330
NASA-CASE-IGS-00381	c09 N70-34819	NASA-CASE-IGS-03431	c21 N71-15642
NASA-CASE-IGS-00458	c09 N70-38604	NASA-CASE-IGS-03501	c09 N71-20864
NASA-CASE-IGS-00466	c21 N70-34297	NASA-CASE-IGS-03502	c10 N71-20852
NASA-CASE-IGS-00473	c03 N70-38713	NASA-CASE-IGS-03505	c03 N71-10608
NASA-CASE-IGS-00587	c15 N70-35087	NASA-CASE-IGS-03532	c14 N71-17627
NASA-CASE-IGS-00619	c30 N70-40016	NASA-CASE-IGS-03556	c27 N70-35534
NASA-CASE-IGS-00689	c08 N70-34787	NASA-CASE-IGS-03632	c09 N71-23311
NASA-CASE-IGS-00740	c07 N71-23098	NASA-CASE-IGS-03644	c16 N71-18614
NASA-CASE-IGS-00769	c14 N70-41647	NASA-CASE-IGS-03736	c14 N72-22443
NASA-CASE-IGS-00783	c30 N71-17788	NASA-CASE-IGS-03864	c15 N69-24320
NASA-CASE-IGS-00809	c21 N70-35427	NASA-CASE-IGS-03865	c14 N69-21363
NASA-CASE-IGS-00823	c10 N71-15910	NASA-CASE-IGS-04047-2	c03 N72-11062
NASA-CASE-IGS-00824	c15 N71-16078	NASA-CASE-IGS-04119	c18 N69-39979
NASA-CASE-IGS-00829-1	c44 N79-19447	NASA-CASE-IGS-04173	c19 N71-26674
NASA-CASE-IGS-00886	c03 N71-11053	NASA-CASE-IGS-04175	c15 N71-18579
NASA-CASE-IGS-00938	c32 N70-41367	NASA-CASE-IGS-04224	c10 N71-26418
NASA-CASE-IGS-00963	c15 N69-39735	NASA-CASE-IGS-04227	c15 N71-21744
NASA-CASE-IGS-01013	c14 N71-23725	NASA-CASE-IGS-04393	c21 N71-14159
NASA-CASE-IGS-01021	c08 N71-21042	NASA-CASE-IGS-04478	c14 N71-24233
NASA-CASE-IGS-01022	c07 N71-16088	NASA-CASE-IGS-04480	c16 N69-27491
NASA-CASE-IGS-01023	c14 N71-22992	NASA-CASE-IGS-04531	c03 N69-28267
NASA-CASE-IGS-01036	c14 N70-40003	NASA-CASE-IGS-04548	c15 N71-24045
NASA-CASE-IGS-01052	c14 N71-15992	NASA-CASE-IGS-04554	c15 N69-39786
NASA-CASE-IGS-01110	c07 N69-24334	NASA-CASE-IGS-04765	c08 N71-18693
NASA-CASE-IGS-01118	c10 N71-23662	NASA-CASE-IGS-04766	c08 N71-18602
NASA-CASE-IGS-01143	c31 N71-15647	NASA-CASE-IGS-04767	c08 N71-12494
NASA-CASE-IGS-01155	c10 N71-21483	NASA-CASE-IGS-04768	c08 N71-19437
NASA-CASE-IGS-01159	c21 N71-10678	NASA-CASE-IGS-04799	c18 N71-24183
NASA-CASE-IGS-01222	c10 N71-20841	NASA-CASE-IGS-04808	c03 N69-25146
NASA-CASE-IGS-01223	c07 N71-10609	NASA-CASE-IGS-04879	c14 N71-20427
NASA-CASE-IGS-01230	c08 N71-19544	NASA-CASE-IGS-04987	c08 N71-20571
NASA-CASE-IGS-01231	c14 N70-41676	NASA-CASE-IGS-04993	c14 N71-17574
NASA-CASE-IGS-01331	c14 N71-22996	NASA-CASE-IGS-04994	c09 N69-21543
NASA-CASE-IGS-01395	c03 N69-21539	NASA-CASE-IGS-04999	c09 N69-24317
NASA-CASE-IGS-01418	c09 N71-23573	NASA-CASE-IGS-05003	c09 N69-24318
NASA-CASE-IGS-01419	c03 N70-41864	NASA-CASE-IGS-05180	c18 N71-25881
NASA-CASE-IGS-01451	c09 N71-10677	NASA-CASE-IGS-05211	c07 N69-39980
NASA-CASE-IGS-01473	c09 N71-10673	NASA-CASE-IGS-05289	c09 N71-19470
NASA-CASE-IGS-01475	c03 N71-11058	NASA-CASE-IGS-05290	c09 N71-25999
NASA-CASE-IGS-01504	c16 N70-41578	NASA-CASE-IGS-05291	c23 N71-16341
NASA-CASE-IGS-01513	c03 N71-23336	NASA-CASE-IGS-05432	c03 N71-19438
NASA-CASE-IGS-01537	c07 N71-23405	NASA-CASE-IGS-05438	c03 N71-20491
NASA-CASE-IGS-01587	c14 N71-15962	NASA-CASE-IGS-05441	c10 N71-22962
NASA-CASE-IGS-01590	c07 N71-12392	NASA-CASE-IGS-05532	c06 N71-17705
NASA-CASE-IGS-01593	c03 N70-35408	NASA-CASE-IGS-05533	c04 N69-27487
NASA-CASE-IGS-01654	c31 N71-24750	NASA-CASE-IGS-05534	c23 N71-16355
NASA-CASE-IGS-01674	c03 N71-29129	NASA-CASE-IGS-05579	c31 N71-15676
NASA-CASE-IGS-01725	c14 N69-39982	NASA-CASE-IGS-05582	c07 N69-27460
NASA-CASE-IGS-01784	c10 N71-20782	NASA-CASE-IGS-05680	c14 N71-17585
NASA-CASE-IGS-01812	c07 N71-23001	NASA-CASE-IGS-05715	c23 N71-16100
NASA-CASE-IGS-01881	c09 N70-40123	NASA-CASE-IGS-05718	c26 N71-16037
NASA-CASE-IGS-01971	c15 N71-15922	NASA-CASE-IGS-05918	c07 N69-39974
NASA-CASE-IGS-01983	c10 N70-41964	NASA-CASE-IGS-06226	c10 N71-25950
NASA-CASE-IGS-02011	c15 N71-20739	NASA-CASE-IGS-06306	c17 N71-16044
NASA-CASE-IGS-02171	c09 N69-24324	NASA-CASE-IGS-06628	c24 N71-16213
NASA-CASE-IGS-02290	c07 N71-28809	NASA-CASE-IGS-07514	c23 N71-16099
NASA-CASE-IGS-02317	c09 N71-23525	NASA-CASE-IGS-07752	c14 N73-30390
NASA-CASE-IGS-02319	c14 N71-22965	NASA-CASE-IGS-07801	c09 N71-12513
NASA-CASE-IGS-02401	c14 N69-27485	NASA-CASE-IGS-07805	c15 N72-33476
NASA-CASE-IGS-02422	c15 N71-21529	NASA-CASE-IGS-08259	c14 N71-23698
NASA-CASE-IGS-02435	c18 N71-22998	NASA-CASE-IGS-08266	c14 N69-27432
NASA-CASE-IGS-02437	c15 N69-21472	NASA-CASE-IGS-08269	c23 N71-26206
NASA-CASE-IGS-02439	c14 N71-19431	NASA-CASE-IGS-08679	c10 N71-21473
NASA-CASE-IGS-02440	c08 N71-19432	NASA-CASE-IGS-08718	c15 N71-24600
NASA-CASE-IGS-02441	c15 N70-41629	NASA-CASE-IGS-08729	c28 N71-14044
NASA-CASE-IGS-02554	c31 N71-21064	NASA-CASE-IGS-09186	c33 N78-17295
NASA-CASE-IGS-02607	c31 N71-23009	NASA-CASE-IGS-09190	c31 N71-16102
NASA-CASE-IGS-02608	c07 N70-41678	NASA-CASE-IGS-10010	c03 N72-15986
NASA-CASE-IGS-02610	c14 N71-23174	NASA-CASE-IGS-10518	c16 N71-28554
NASA-CASE-IGS-02612	c08 N71-19435	NASA-CASE-IGS-11177	c09 N71-27001
NASA-CASE-IGS-02629	c14 N71-21082		
NASA-CASE-IGS-02630	c03 N71-22974	NASA-CASE-XHQ-01208	c15 N70-35409
NASA-CASE-IGS-02631	c03 N71-23006	NASA-CASE-XHQ-01897	c28 N70-35381
NASA-CASE-IGS-02749	c07 N69-39978	NASA-CASE-XHQ-02146	c18 N75-27040
NASA-CASE-IGS-02751	c09 N71-23015	NASA-CASE-XHQ-03673	c33 N71-29046
NASA-CASE-IGS-02812	c09 N71-19466	NASA-CASE-XHQ-03903	c15 N69-21922
NASA-CASE-IGS-02816	c07 N69-24323	NASA-CASE-XHQ-04106	c14 N70-40240
NASA-CASE-IGS-02884	c15 N71-22705		
NASA-CASE-IGS-02889	c07 N71-11282	NASA-CASE-XKS-00340	c09 N73-14215

NUMBER INDEX

NASA-CASE-IKS-01985	c15	N71-10782	NASA-CASE-XLA-00781	c09	N71-22999
NASA-CASE-IKS-02342	c05	N71-11199	NASA-CASE-XLA-00791	c03	N70-39930
NASA-CASE-IKS-02582	c15	N71-21234	NASA-CASE-XLA-00793	c21	N71-22880
NASA-CASE-IKS-03338	c15	N71-24043	NASA-CASE-XLA-00805	c31	N70-38010
NASA-CASE-IKS-03381	c09	N71-22796	NASA-CASE-XLA-00806	c02	N70-34858
NASA-CASE-IKS-03495	c14	N69-39785	NASA-CASE-XLA-00838	c03	N70-36778
NASA-CASE-IKS-03509	c14	N71-23175	NASA-CASE-XLA-00892	c33	N71-17897
NASA-CASE-IKS-04614	c15	N69-21460	NASA-CASE-XLA-00898	c02	N70-36804
NASA-CASE-IKS-04631	c10	N71-23663	NASA-CASE-XLA-00901	c07	N71-10775
NASA-CASE-IKS-05932	c09	N71-26787	NASA-CASE-XLA-00934	c14	N71-22765
NASA-CASE-IKS-06167	c08	N71-24890	NASA-CASE-XLA-00936	c14	N71-14996
NASA-CASE-IKS-06250	c14	N71-15600	NASA-CASE-XLA-00937	c31	N71-17691
NASA-CASE-IKS-07814	c15	N71-27067	NASA-CASE-XLA-00939	c11	N71-15926
NASA-CASE-IKS-07953	c15	N71-26134	NASA-CASE-XLA-00941	c14	N71-23240
NASA-CASE-IKS-08012-2	c31	N71-15566	NASA-CASE-XLA-01019	c15	N71-80156
NASA-CASE-IKS-08485	c07	N71-19493	NASA-CASE-XLA-01027	c31	N71-24035
NASA-CASE-IKS-09340	c07	N71-24614	NASA-CASE-XLA-01043	c28	N71-10780
NASA-CASE-IKS-09348	c09	N71-13521	NASA-CASE-XLA-01090	c07	N71-12389
NASA-CASE-IKS-10543	c07	N71-26292	NASA-CASE-XLA-01090	c16	N71-28963
NASA-CASE-IKS-10804	c05	N71-24606	NASA-CASE-XLA-01091	c15	N71-10672
			NASA-CASE-XLA-01127	c07	N70-41372
NASA-CASE-XLA-1349	c20	N77-17143	NASA-CASE-XLA-01131	c14	N71-10774
NASA-CASE-XLA-8914	c15	N73-12492	NASA-CASE-XLA-01141	c15	N71-13789
NASA-CASE-XLA-8914-2	c34	N76-23522	NASA-CASE-XLA-01163	c21	N71-15582
NASA-CASE-XLA-00013	c15	N71-29136	NASA-CASE-XLA-01219	c10	N71-23084
NASA-CASE-XLA-00062	c14	N70-33254	NASA-CASE-XLA-01220	c02	N70-41863
NASA-CASE-XLA-00087	c02	N70-33332	NASA-CASE-XLA-01243	c33	N71-22792
NASA-CASE-XLA-00100	c14	N70-36807	NASA-CASE-XLA-01262	c15	N71-21404
NASA-CASE-XLA-00105	c28	N70-33331	NASA-CASE-XLA-01288	c09	N69-21470
NASA-CASE-XLA-00112	c11	N70-33287	NASA-CASE-XLA-01290	c02	N70-42016
NASA-CASE-XLA-00113	c14	N70-33386	NASA-CASE-XLA-01291	c33	N70-36617
NASA-CASE-XLA-00115	c03	N70-33343	NASA-CASE-XLA-01326	c11	N71-21481
NASA-CASE-XLA-00117	c31	N71-17680	NASA-CASE-XLA-01332	c31	N71-15664
NASA-CASE-XLA-00118	c05	N70-33285	NASA-CASE-XLA-01339	c31	N71-15692
NASA-CASE-XLA-00119	c11	N70-33329	NASA-CASE-XLA-01353	c14	N70-41366
NASA-CASE-XLA-00120	c21	N70-33181	NASA-CASE-XLA-01354	c25	N70-36946
NASA-CASE-XLA-00128	c15	N70-37925	NASA-CASE-XLA-01396	c03	N71-12259
NASA-CASE-XLA-00135	c14	N70-33322	NASA-CASE-XLA-01400	c07	N70-41331
NASA-CASE-XLA-00137	c15	N70-33180	NASA-CASE-XLA-01401	c15	N71-21179
NASA-CASE-XLA-00138	c31	N70-37981	NASA-CASE-XLA-01441	c15	N70-41679
NASA-CASE-XLA-00141	c09	N70-33312	NASA-CASE-XLA-01446	c15	N71-21528
NASA-CASE-XLA-00142	c02	N70-33286	NASA-CASE-XLA-01486	c01	N71-23497
NASA-CASE-XLA-00147	c25	N70-34661	NASA-CASE-XLA-01494	c15	N71-24164
NASA-CASE-XLA-00149	c31	N70-37938	NASA-CASE-XLA-01530	c14	N71-23092
NASA-CASE-XLA-00154	c28	N70-33374	NASA-CASE-XLA-01551	c14	N71-22989
NASA-CASE-XLA-00158	c26	N70-36805	NASA-CASE-XLA-01552	c07	N71-11284
NASA-CASE-XLA-00165	c31	N70-33282	NASA-CASE-XLA-01583	c02	N70-36825
NASA-CASE-XLA-00166	c02	N70-34178	NASA-CASE-XLA-01584	c14	N71-23269
NASA-CASE-XLA-00183	c14	N70-40239	NASA-CASE-XLA-01731	c32	N71-21045
NASA-CASE-XLA-00188	c15	N71-22874	NASA-CASE-XLA-01745	c33	N71-28903
NASA-CASE-XLA-00189	c33	N70-36846	NASA-CASE-XLA-01781	c14	N69-39975
NASA-CASE-XLA-00195	c02	N70-38009	NASA-CASE-XLA-01782	c14	N71-26136
NASA-CASE-XLA-00203	c14	N70-34161	NASA-CASE-XLA-01787	c11	N71-16028
NASA-CASE-XLA-00204	c32	N70-36536	NASA-CASE-XLA-01791	c14	N71-22991
NASA-CASE-XLA-00210	c30	N70-40309	NASA-CASE-XLA-01794	c33	N71-21586
NASA-CASE-XLA-00221	c02	N70-33266	NASA-CASE-XLA-01804	c02	N70-34160
NASA-CASE-XLA-00229	c12	N70-33305	NASA-CASE-XLA-01807	c15	N71-10799
NASA-CASE-XLA-00230	c02	N70-33255	NASA-CASE-XLA-01808	c15	N71-20740
NASA-CASE-XLA-00241	c31	N70-37986	NASA-CASE-XLA-01832	c14	N71-21006
NASA-CASE-XLA-00256	c31	N71-15663	NASA-CASE-XLA-01907	c14	N71-23268
NASA-CASE-XLA-00258	c31	N70-38676	NASA-CASE-XLA-01926	c14	N71-15620
NASA-CASE-XLA-00281	c21	N70-36943	NASA-CASE-XLA-01952	c08	N71-12507
NASA-CASE-XLA-00284	c15	N71-16075	NASA-CASE-XLA-01967	c31	N70-42015
NASA-CASE-XLA-00302	c15	N71-16077	NASA-CASE-XLA-01987	c23	N71-23976
NASA-CASE-XLA-00304	c27	N70-34783	NASA-CASE-XLA-01989	c21	N70-34295
NASA-CASE-XLA-00326	c03	N70-34667	NASA-CASE-XLA-01995	c18	N71-23047
NASA-CASE-XLA-00327	c25	N71-29184	NASA-CASE-XLA-02050	c31	N71-22968
NASA-CASE-XLA-00330	c33	N70-34540	NASA-CASE-XLA-02057	c26	N70-40015
NASA-CASE-XLA-00349	c33	N70-37979	NASA-CASE-XLA-02059	c33	N71-24276
NASA-CASE-XLA-00350	c02	N70-38011	NASA-CASE-XLA-02079	c12	N71-16894
NASA-CASE-XLA-00377	c33	N71-17610	NASA-CASE-XLA-02081	c20	N71-16281
NASA-CASE-XLA-00378	c11	N71-15925	NASA-CASE-XLA-02131	c32	N70-42003
NASA-CASE-XLA-00414	c07	N70-38200	NASA-CASE-XLA-02132	c31	N71-10582
NASA-CASE-XLA-00415	c15	N71-16079	NASA-CASE-XLA-02332	c32	N71-17609
NASA-CASE-XLA-00471	c08	N70-34778	NASA-CASE-XLA-02551	c21	N71-21708
NASA-CASE-XLA-00481	c14	N70-36824	NASA-CASE-XLA-02605	c14	N71-10773
NASA-CASE-XLA-00482	c15	N70-36409	NASA-CASE-XLA-02609	c09	N72-25256
NASA-CASE-XLA-00487	c14	N70-40157	NASA-CASE-XLA-02619	c10	N71-26334
NASA-CASE-XLA-00492	c14	N70-34799	NASA-CASE-XLA-02651	c28	N70-41967
NASA-CASE-XLA-00493	c11	N70-34786	NASA-CASE-XLA-02704	c11	N69-21540
NASA-CASE-XLA-00495	c14	N70-41332	NASA-CASE-XLA-02705	c08	N71-15908
NASA-CASE-XLA-00670	c08	N71-12501	NASA-CASE-XLA-02758	c14	N71-18481
NASA-CASE-XLA-00675	c25	N70-33267	NASA-CASE-XLA-02809	c15	N71-22982
NASA-CASE-XLA-00678	c31	N70-34296	NASA-CASE-XLA-02810	c14	N71-25901
NASA-CASE-XLA-00679	c15	N70-38601	NASA-CASE-XLA-02850	c09	N71-20447
NASA-CASE-XLA-00686	c31	N70-34135	NASA-CASE-XLA-02854	c15	N69-27490
NASA-CASE-XLA-00711	c03	N71-12258	NASA-CASE-XLA-02865	c28	N71-15563
NASA-CASE-XLA-00754	c15	N70-34850	NASA-CASE-XLA-02898	c05	N71-20268
NASA-CASE-XLA-00755	c01	N71-13410	NASA-CASE-XLA-03076	c07	N71-11266

NUMBER INDEX

NASA-CASE-XLA-03102	.....	c14	N71-21079	NASA-CASE-XLA-08967	.....	c02	N71-27088
NASA-CASE-XLA-03103	.....	c25	N71-21693	NASA-CASE-XLA-09122	.....	c15	N69-27505
NASA-CASE-XLA-03104	.....	c06	N71-11235	NASA-CASE-XLA-09346	.....	c15	N71-28780
NASA-CASE-XLA-03105	.....	c15	N69-27483	NASA-CASE-XLA-09371	.....	c10	N71-18724
NASA-CASE-XLA-03114	.....	c09	N71-22888	NASA-CASE-XLA-09480	.....	c11	N71-33612
NASA-CASE-XLA-03127	.....	c11	N71-10776	NASA-CASE-XLA-09843	.....	c15	N72-27485
NASA-CASE-XLA-03132	.....	c31	N71-22969	NASA-CASE-XLA-09881	.....	c31	N71-16085
NASA-CASE-XLA-03135	.....	c32	N71-16428	NASA-CASE-XLA-10322	.....	c15	N72-17452
NASA-CASE-XLA-03213	.....	c05	N71-11207	NASA-CASE-XLA-10402	.....	c14	N71-29041
NASA-CASE-XLA-03271	.....	c11	N69-24321	NASA-CASE-XLA-10450	.....	c28	N71-21493
NASA-CASE-XLA-03273	.....	c14	N71-18699	NASA-CASE-XLA-10470	.....	c15	N72-21489
NASA-CASE-XLA-03356	.....	c10	N71-23315	NASA-CASE-XLA-10772	.....	c07	N71-28980
NASA-CASE-XLA-03374	.....	c25	N71-15562	NASA-CASE-XLA-11028-1	.....	c24	N74-27035
NASA-CASE-XLA-03375	.....	c16	N71-24074	NASA-CASE-XLA-11154	.....	c07	N72-21117
NASA-CASE-XLA-03410	.....	c16	N71-25914	NASA-CASE-XLA-11189	.....	c10	N72-20222
NASA-CASE-XLA-03492	.....	c15	N71-22713				
NASA-CASE-XLA-03497	.....	c15	N71-23052	NASA-CASE-XLE-2529-2	.....	c36	N75-27364
NASA-CASE-XLA-03538	.....	c15	N71-24897	NASA-CASE-XLE-2529-3	.....	c33	N74-20859
NASA-CASE-XLA-03645	.....	c14	N71-20430	NASA-CASE-XLE-00005	.....	c28	N70-39899
NASA-CASE-XLA-03659	.....	c02	N71-11041	NASA-CASE-XLE-00010	.....	c15	N70-33382
NASA-CASE-XLA-03660	.....	c15	N71-21060	NASA-CASE-XLE-00011	.....	c14	N70-41946
NASA-CASE-XLA-03661	.....	c15	N71-33518	NASA-CASE-XLE-00020	.....	c15	N70-33226
NASA-CASE-XLA-03691	.....	c31	N71-15674	NASA-CASE-XLE-00023	.....	c15	N70-33330
NASA-CASE-XLA-03724	.....	c14	N69-27461	NASA-CASE-XLE-00027	.....	c33	N71-29152
NASA-CASE-XLA-03893	.....	c10	N71-27271	NASA-CASE-XLE-00035	.....	c33	N71-29151
NASA-CASE-XLA-04063	.....	c31	N71-33160	NASA-CASE-XLE-00037	.....	c28	N70-33372
NASA-CASE-XLA-04126	.....	c28	N71-26779	NASA-CASE-XLE-00046	.....	c15	N70-33311
NASA-CASE-XLA-04143	.....	c15	N71-17687	NASA-CASE-XLE-00057	.....	c28	N70-38711
NASA-CASE-XLA-04251	.....	c18	N71-26100	NASA-CASE-XLE-00078	.....	c28	N70-33284
NASA-CASE-XLA-04295	.....	c16	N71-24170	NASA-CASE-XLE-00085	.....	c28	N70-33285
NASA-CASE-XLA-04451	.....	c02	N71-12243	NASA-CASE-XLE-00092	.....	c15	N70-33264
NASA-CASE-XLA-04555-1	.....	c14	N71-25892	NASA-CASE-XLE-00101	.....	c15	N70-33376
NASA-CASE-XLA-04556	.....	c14	N69-27484	NASA-CASE-XLE-00103	.....	c28	N70-33241
NASA-CASE-XLA-04605	.....	c32	N71-16106	NASA-CASE-XLE-00106	.....	c15	N71-16076
NASA-CASE-XLA-04622	.....	c03	N70-41580	NASA-CASE-XLE-00111	.....	c28	N70-38199
NASA-CASE-XLA-04804	.....	c31	N71-23008	NASA-CASE-XLE-00143	.....	c14	N70-36618
NASA-CASE-XLA-04897	.....	c15	N72-22482	NASA-CASE-XLE-00144	.....	c28	N70-34860
NASA-CASE-XLA-04901	.....	c31	N71-24315	NASA-CASE-XLE-00145	.....	c28	N70-36806
NASA-CASE-XLA-04980	.....	c09	N69-27422	NASA-CASE-XLE-00150	.....	c28	N70-41818
NASA-CASE-XLA-04980-2	.....	c14	N72-28438	NASA-CASE-XLE-00151	.....	c17	N70-33283
NASA-CASE-XLA-05056	.....	c15	N72-11389	NASA-CASE-XLE-00155	.....	c28	N71-29154
NASA-CASE-XLA-05087	.....	c14	N73-30391	NASA-CASE-XLE-00164	.....	c15	N70-36411
NASA-CASE-XLA-05099	.....	c09	N73-13209	NASA-CASE-XLE-00168	.....	c11	N70-33278
NASA-CASE-XLA-05100	.....	c15	N71-17696	NASA-CASE-XLE-00170	.....	c15	N70-36412
NASA-CASE-XLA-05332	.....	c05	N71-11194	NASA-CASE-XLE-00177	.....	c28	N70-40367
NASA-CASE-XLA-05369	.....	c31	N71-15687	NASA-CASE-XLE-00207	.....	c28	N70-33375
NASA-CASE-XLA-05378	.....	c11	N71-21475	NASA-CASE-XLE-00208	.....	c28	N70-34294
NASA-CASE-XLA-05464	.....	c21	N71-14132	NASA-CASE-XLE-00209	.....	c22	N73-32528
NASA-CASE-XLA-05541	.....	c12	N71-26387	NASA-CASE-XLE-00212	.....	c03	N70-34134
NASA-CASE-XLA-05749	.....	c15	N71-19569	NASA-CASE-XLE-00222	.....	c02	N70-37939
NASA-CASE-XLA-05828	.....	c01	N71-13411	NASA-CASE-XLE-00228	.....	c17	N70-38490
NASA-CASE-XLA-05906	.....	c31	N71-16221	NASA-CASE-XLE-00231	.....	c17	N70-38198
NASA-CASE-XLA-05966	.....	c15	N72-12408	NASA-CASE-XLE-00243	.....	c14	N70-38602
NASA-CASE-XLA-06095	.....	c01	N69-39981	NASA-CASE-XLE-00252	.....	c11	N70-34844
NASA-CASE-XLA-06199	.....	c15	N71-24875	NASA-CASE-XLE-00266	.....	c14	N70-34156
NASA-CASE-XLA-06232	.....	c25	N71-20563	NASA-CASE-XLE-00267	.....	c28	N70-33356
NASA-CASE-XLA-06339	.....	c02	N71-13422	NASA-CASE-XLE-00283	.....	c17	N70-36616
NASA-CASE-XLA-06683	.....	c14	N72-28436	NASA-CASE-XLE-00288	.....	c15	N70-34247
NASA-CASE-XLA-06713	.....	c14	N71-28991	NASA-CASE-XLE-00298	.....	c22	N70-34501
NASA-CASE-XLA-06824-2	.....	c02	N71-11037	NASA-CASE-XLE-00301	.....	c14	N70-36808
NASA-CASE-XLA-06958	.....	c02	N71-11038	NASA-CASE-XLE-00303	.....	c15	N70-36535
NASA-CASE-XLA-07390	.....	c15	N71-18616	NASA-CASE-XLE-00321	.....	c22	N70-34572
NASA-CASE-XLA-07391	.....	c12	N71-17579	NASA-CASE-XLE-00323	.....	c28	N70-38505
NASA-CASE-XLA-07424	.....	c14	N71-18482	NASA-CASE-XLE-00335	.....	c14	N70-35368
NASA-CASE-XLA-07430	.....	c11	N72-22246	NASA-CASE-XLE-00342	.....	c28	N70-37980
NASA-CASE-XLA-07473	.....	c15	N71-24895	NASA-CASE-XLE-00345	.....	c15	N70-38020
NASA-CASE-XLA-07497	.....	c09	N71-12514	NASA-CASE-XLE-00353	.....	c18	N70-39897
NASA-CASE-XLA-07728	.....	c33	N71-22890	NASA-CASE-XLE-00376	.....	c28	N70-37245
NASA-CASE-XLA-07732	.....	c08	N71-18751	NASA-CASE-XLE-00387	.....	c33	N70-34812
NASA-CASE-XLA-07788	.....	c09	N71-29139	NASA-CASE-XLE-00388	.....	c28	N70-34788
NASA-CASE-XLA-07813	.....	c14	N72-17328	NASA-CASE-XLE-00397	.....	c15	N70-36492
NASA-CASE-XLA-07828	.....	c08	N71-27057	NASA-CASE-XLE-00409	.....	c28	N71-15658
NASA-CASE-XLA-07829	.....	c15	N72-16329	NASA-CASE-XLE-00454	.....	c23	N71-17802
NASA-CASE-XLA-07911	.....	c15	N71-15571	NASA-CASE-XLE-00455	.....	c28	N70-38197
NASA-CASE-XLA-08254	.....	c14	N71-26161	NASA-CASE-XLE-00490	.....	c33	N70-34545
NASA-CASE-XLA-08491	.....	c05	N69-21380	NASA-CASE-XLE-00503	.....	c14	N70-34818
NASA-CASE-XLA-08493	.....	c10	N71-19421	NASA-CASE-XLE-00519	.....	c28	N70-41576
NASA-CASE-XLA-08507	.....	c09	N69-39984	NASA-CASE-XLE-00586	.....	c15	N71-15968
NASA-CASE-XLA-08530	.....	c32	N71-25360	NASA-CASE-XLE-00620	.....	c32	N70-41579
NASA-CASE-XLA-08645	.....	c15	N69-21465	NASA-CASE-XLE-00660	.....	c28	N70-39925
NASA-CASE-XLA-08646	.....	c14	N71-17586	NASA-CASE-XLE-00685	.....	c28	N70-41992
NASA-CASE-XLA-08799	.....	c10	N71-27272	NASA-CASE-XLE-00688	.....	c14	N70-41330
NASA-CASE-XLA-08801-1	.....	c02	N71-11043	NASA-CASE-XLE-00690	.....	c25	N69-39884
NASA-CASE-XLA-08802	.....	c06	N71-11238	NASA-CASE-XLE-00702	.....	c14	N70-40203
NASA-CASE-XLA-08911	.....	c15	N71-27214	NASA-CASE-XLE-00703	.....	c15	N71-15967
NASA-CASE-XLA-08913	.....	c14	N71-28933	NASA-CASE-XLE-00715	.....	c15	N70-34859
NASA-CASE-XLA-08916	.....	c15	N71-29018	NASA-CASE-XLE-00720	.....	c14	N70-40201
NASA-CASE-XLA-08916-2	.....	c14	N73-28487	NASA-CASE-XLE-00724	.....	c14	N70-34669
NASA-CASE-XLA-08966-1	.....	c17	N71-25903	NASA-CASE-XLE-00726	.....	c17	N71-15644

NUMBER INDEX

NASA-CASE-XLE-00785	.....	c33	N71-16104	NASA-CASE-XLE-05230	.....	c14	N72-27410
NASA-CASE-XLE-00787	.....	c14	N71-21090	NASA-CASE-XLE-05230-2	.....	c14	N73-13417
NASA-CASE-XLE-00808	.....	c24	N71-10560	NASA-CASE-XLE-05260	.....	c14	N71-20429
NASA-CASE-XLE-00810	.....	c15	N70-34861	NASA-CASE-XLE-05641-1	.....	c15	N71-26346
NASA-CASE-XLE-00815	.....	c15	N70-35407	NASA-CASE-XLE-05689	.....	c28	N71-15659
NASA-CASE-XLE-00817	.....	c28	N70-33265	NASA-CASE-XLE-05913	.....	c33	N71-14032
NASA-CASE-XLE-00818	.....	c22	N70-34248	NASA-CASE-XLE-06094	.....	c33	N78-17293
NASA-CASE-XLE-00820	.....	c14	N71-16014	NASA-CASE-XLE-06461	.....	c17	N72-22530
NASA-CASE-XLE-00821	.....	c25	N71-15650	NASA-CASE-XLE-06461-2	.....	c17	N72-28535
NASA-CASE-XLE-00953	.....	c15	N71-15966	NASA-CASE-XLE-06773	.....	c15	N71-23817
NASA-CASE-XLE-01015	.....	c03	N69-39898	NASA-CASE-XLE-06774-2	.....	c06	N72-25150
NASA-CASE-XLE-01092	.....	c15	N71-22797	NASA-CASE-XLE-06969	.....	c17	N71-24142
NASA-CASE-XLE-01124	.....	c28	N71-14043	NASA-CASE-XLE-07087	.....	c06	N69-39889
NASA-CASE-XLE-01182	.....	c27	N71-15635	NASA-CASE-XLE-08511	.....	c18	N71-23710
NASA-CASE-XLE-01246	.....	c14	N71-10797	NASA-CASE-XLE-08511-2	.....	c18	N71-16105
NASA-CASE-XLE-01300	.....	c15	N70-41993	NASA-CASE-XLE-08569	.....	c03	N71-23449
NASA-CASE-XLE-01399	.....	c33	N71-15625	NASA-CASE-XLE-08569-2	.....	c03	N71-24681
NASA-CASE-XLE-01449	.....	c15	N70-41686	NASA-CASE-XLE-08917	.....	c15	N71-15597
NASA-CASE-XLE-01481	.....	c14	N71-10781	NASA-CASE-XLE-08917-2	.....	c15	N71-24836
NASA-CASE-XLE-01512	.....	c12	N70-40124	NASA-CASE-XLE-09341	.....	c12	N71-28741
NASA-CASE-XLE-01533	.....	c11	N71-10777	NASA-CASE-XLE-09475-1	.....	c33	N71-15568
NASA-CASE-XLE-01604-2	.....	c15	N71-15610	NASA-CASE-XLE-09527	.....	c15	N71-17688
NASA-CASE-XLE-01609	.....	c14	N71-10500	NASA-CASE-XLE-09527-2	.....	c15	N71-26189
NASA-CASE-XLE-01640	.....	c31	N71-15637	NASA-CASE-XLE-10326-2	.....	c15	N72-29888
NASA-CASE-XLE-01645	.....	c03	N71-20904	NASA-CASE-XLE-10326-4	.....	c37	N74-15125
NASA-CASE-XLE-01716	.....	c09	N70-40234	NASA-CASE-XLE-10337	.....	c15	N71-24046
NASA-CASE-XLE-01765	.....	c18	N71-10772	NASA-CASE-XLE-10453-2	.....	c28	N73-27699
NASA-CASE-XLE-01783	.....	c28	N70-34175	NASA-CASE-XLE-10466	.....	c17	N69-25141
NASA-CASE-XLE-01902	.....	c28	N71-10574	NASA-CASE-XLE-10529	.....	c14	N69-23191
NASA-CASE-XLE-01903	.....	c22	N71-23599	NASA-CASE-XLE-10715	.....	c26	N71-23292
NASA-CASE-XLE-01988	.....	c27	N71-15634	NASA-CASE-XLE-10717	.....	c37	N75-29426
NASA-CASE-XLE-01997	.....	c06	N71-23527	NASA-CASE-XLE-10910	.....	c18	N71-29040
NASA-CASE-XLE-02008	.....	c09	N71-21583	NASA-CASE-XLE-103477-1	.....	c28	N71-20330
NASA-CASE-XLE-02024	.....	c14	N71-22964				
NASA-CASE-XLE-02038	.....	c09	N71-16086	NASA-CASE-XMP-00148	.....	c28	N70-38710
NASA-CASE-XLE-02066	.....	c28	N71-15661	NASA-CASE-XMP-00185	.....	c21	N70-34539
NASA-CASE-XLE-02082	.....	c17	N71-16026	NASA-CASE-XMP-00324	.....	c09	N70-34596
NASA-CASE-XLE-02083	.....	c03	N69-39983	NASA-CASE-XMP-00339	.....	c15	N70-39896
NASA-CASE-XLE-02367-1	.....	c31	N79-21225	NASA-CASE-XMP-00341	.....	c15	N70-33323
NASA-CASE-XLE-02428	.....	c17	N70-33288	NASA-CASE-XMP-00369	.....	c09	N70-36494
NASA-CASE-XLE-02531	.....	c05	N71-23080	NASA-CASE-XMP-00375	.....	c15	N70-34249
NASA-CASE-XLE-02545-1	.....	c76	N79-21910	NASA-CASE-XMP-00389	.....	c31	N70-34176
NASA-CASE-XLE-02578	.....	c25	N71-20747	NASA-CASE-XMP-00392	.....	c15	N70-34814
NASA-CASE-XLE-02624	.....	c12	N69-39988	NASA-CASE-XMP-00411	.....	c11	N70-36913
NASA-CASE-XLE-02647	.....	c18	N71-23658	NASA-CASE-XMP-00421	.....	c09	N70-34502
NASA-CASE-XLE-02792	.....	c26	N71-10607	NASA-CASE-XMP-00424	.....	c11	N70-38196
NASA-CASE-XLE-02798	.....	c26	N71-23654	NASA-CASE-XMP-00437	.....	c07	N70-40202
NASA-CASE-XLE-02823	.....	c09	N71-23443	NASA-CASE-XMP-00442	.....	c31	N71-10747
NASA-CASE-XLE-02824	.....	c03	N69-39890	NASA-CASE-XMP-00447	.....	c14	N70-33179
NASA-CASE-XLE-02902	.....	c25	N71-21694	NASA-CASE-XMP-00456	.....	c14	N70-34705
NASA-CASE-XLE-02991	.....	c17	N71-16025	NASA-CASE-XMP-00462	.....	c14	N70-34298
NASA-CASE-XLE-02998	.....	c14	N70-42074	NASA-CASE-XMP-00479	.....	c14	N70-34794
NASA-CASE-XLE-02999	.....	c15	N71-16052	NASA-CASE-XMP-00480	.....	c14	N70-39898
NASA-CASE-XLE-03061-1	.....	c10	N71-24798	NASA-CASE-XMP-00515	.....	c15	N70-34664
NASA-CASE-XLE-03157	.....	c28	N71-24736	NASA-CASE-XMP-00517	.....	c03	N70-34157
NASA-CASE-XLE-03186-1	.....	c09	N79-21084	NASA-CASE-XMP-00580	.....	c11	N70-35383
NASA-CASE-XLE-03280	.....	c14	N71-23093	NASA-CASE-XMP-00640	.....	c15	N70-39924
NASA-CASE-XLE-03307	.....	c33	N71-14035	NASA-CASE-XMP-00641	.....	c31	N70-36410
NASA-CASE-XLE-03432	.....	c33	N71-24145	NASA-CASE-XMP-00658	.....	c12	N70-38997
NASA-CASE-XLE-03494	.....	c27	N71-21819	NASA-CASE-XMP-00663	.....	c08	N71-18752
NASA-CASE-XLE-03512	.....	c12	N69-21466	NASA-CASE-XMP-00684	.....	c21	N71-21688
NASA-CASE-XLE-03583	.....	c31	N71-17629	NASA-CASE-XMP-00701	.....	c09	N70-40272
NASA-CASE-XLE-03629	.....	c17	N71-23248	NASA-CASE-XMP-00722	.....	c15	N70-40204
NASA-CASE-XLE-03778	.....	c09	N69-21542	NASA-CASE-XMP-00906	.....	c09	N70-41655
NASA-CASE-XLE-03803	.....	c15	N71-23816	NASA-CASE-XMP-00908	.....	c14	N70-40238
NASA-CASE-XLE-03803-2	.....	c15	N71-17651	NASA-CASE-XMP-00923	.....	c28	N70-36802
NASA-CASE-XLE-03804	.....	c10	N71-19471	NASA-CASE-XMP-00968	.....	c28	N71-15660
NASA-CASE-XLE-03925	.....	c18	N71-22894	NASA-CASE-XMP-01016	.....	c26	N71-17818
NASA-CASE-XLE-03940	.....	c18	N71-26153	NASA-CASE-XMP-01030	.....	c18	N70-41583
NASA-CASE-XLE-03940-2	.....	c17	N72-28536	NASA-CASE-XMP-01045	.....	c15	N70-40354
NASA-CASE-XLE-04026	.....	c14	N71-23267	NASA-CASE-XMP-01049	.....	c15	N71-23049
NASA-CASE-XLE-04222	.....	c23	N71-22881	NASA-CASE-XMP-01083	.....	c15	N71-22723
NASA-CASE-XLE-04250	.....	c09	N71-20446	NASA-CASE-XMP-01096	.....	c10	N71-16030
NASA-CASE-XLE-04501	.....	c09	N71-23190	NASA-CASE-XMP-01097	.....	c10	N71-16058
NASA-CASE-XLE-04503	.....	c14	N71-24864	NASA-CASE-XMP-01099	.....	c14	N71-15969
NASA-CASE-XLE-04526	.....	c03	N71-11052	NASA-CASE-XMP-01129	.....	c09	N70-38712
NASA-CASE-XLE-04535	.....	c03	N71-23354	NASA-CASE-XMP-01160	.....	c07	N71-11298
NASA-CASE-XLE-04599	.....	c22	N72-20597	NASA-CASE-XMP-01174	.....	c02	N70-41589
NASA-CASE-XLE-04603	.....	c33	N71-21507	NASA-CASE-XMP-01371	.....	c15	N70-41829
NASA-CASE-XLE-04677	.....	c15	N71-10577	NASA-CASE-XMP-01402	.....	c18	N71-21651
NASA-CASE-XLE-04787	.....	c03	N71-20492	NASA-CASE-XMP-01452	.....	c15	N70-41371
NASA-CASE-XLE-04788	.....	c09	N71-22987	NASA-CASE-XMP-01483	.....	c14	N69-27431
NASA-CASE-XLE-04791	.....	c32	N74-22096	NASA-CASE-XMP-01543	.....	c31	N71-17730
NASA-CASE-XLE-04857	.....	c28	N71-23968	NASA-CASE-XMP-01544	.....	c28	N70-34162
NASA-CASE-XLE-04946	.....	c17	N71-24911	NASA-CASE-XMP-01598	.....	c21	N71-15583
NASA-CASE-XLE-05033	.....	c15	N71-23810	NASA-CASE-XMP-01599	.....	c09	N71-20705
NASA-CASE-XLE-05079	.....	c15	N71-17652	NASA-CASE-XMP-01667	.....	c15	N71-17647
NASA-CASE-XLE-05130	.....	c15	N69-21362	NASA-CASE-XMP-01669	.....	c21	N71-23289
NASA-CASE-XLE-05130-2	.....	c15	N71-19570	NASA-CASE-XMP-01730	.....	c15	N71-23050

NUMBER INDEX

NASA-CASE-XMF-01772	c11	N70-41677	NASA-CASE-XMF-06900-1	c27	N79-21191
NASA-CASE-XMF-01779	c12	N71-20815	NASA-CASE-XMF-06926	c28	N71-22983
NASA-CASE-XMF-01313	c28	N70-41582	NASA-CASE-XMF-07069	c15	N71-23815
NASA-CASE-XMF-01887	c15	N71-10617	NASA-CASE-XMF-07488	c11	N71-18773
NASA-CASE-XMF-01892	c10	N71-22986	NASA-CASE-XMF-07587	c15	N71-18701
NASA-CASE-XMF-01899	c31	N70-41948	NASA-CASE-XMF-07770-2	c18	N71-26772
NASA-CASE-XMF-01973	c31	N70-41588	NASA-CASE-XMF-07808	c15	N71-23812
NASA-CASE-XMF-01974	c14	N71-22752	NASA-CASE-XMF-08217	c03	N71-23239
NASA-CASE-XMF-02039	c15	N71-15871	NASA-CASE-XMF-08522	c15	N71-19486
NASA-CASE-XMF-02107	c15	N71-10809	NASA-CASE-XMF-08523	c31	N71-20396
NASA-CASE-XMF-02108	c31	N70-36845	NASA-CASE-XMF-08651	c06	N71-11236
NASA-CASE-XMF-02221	c18	N71-27170	NASA-CASE-XMF-08652	c06	N71-11243
NASA-CASE-XMF-02263	c05	N74-10907	NASA-CASE-XMF-08655	c06	N71-11239
NASA-CASE-XMF-02303	c17	N71-23828	NASA-CASE-XMF-08656	c06	N71-11242
NASA-CASE-XMF-02307	c14	N71-10779	NASA-CASE-XMF-08665	c10	N71-19467
NASA-CASE-XMF-02330	c15	N71-23798	NASA-CASE-XMF-08674	c06	N71-28807
NASA-CASE-XMF-02392	c32	N71-24285	NASA-CASE-XMF-08804	c09	N71-24717
NASA-CASE-XMF-02433	c14	N71-10616	NASA-CASE-XMF-09422	c07	N71-19436
NASA-CASE-XMF-02526-1	c27	N79-21190	NASA-CASE-XMF-09902	c15	N72-11387
NASA-CASE-XMF-02527-1	c27	N79-21190	NASA-CASE-XMF-10040	c15	N71-22877
NASA-CASE-XMF-02584	c06	N71-20905	NASA-CASE-XMF-10289	c14	N71-23699
NASA-CASE-XMF-02783-1	c27	N79-21190	NASA-CASE-XMF-10753	c06	N71-11237
NASA-CASE-XMF-02786	c17	N71-20743	NASA-CASE-XMF-10968	c14	N71-24234
NASA-CASE-XMF-02822	c14	N70-41994	NASA-CASE-XMF-14032	c20	N71-16340
NASA-CASE-XMF-02853	c31	N70-36654	NASA-CASE-XMF-14301	c09	N71-2318
NASA-CASE-XMF-02964	c14	N71-17659			
NASA-CASE-XMF-02966	c10	N71-24863	NASA-CASE-XMS-00259	c18	N70-36400
NASA-CASE-XMF-03074	c06	N71-24740	NASA-CASE-XMS-00370	c17	N71-20941
NASA-CASE-XMF-03169	c31	N71-15675	NASA-CASE-XMS-00486	c33	N70-33344
NASA-CASE-XMF-03198	c30	N70-40353	NASA-CASE-XMS-00583	c28	N70-38504
NASA-CASE-XMF-03212	c15	N71-22721	NASA-CASE-XMS-00784	c05	N71-12335
NASA-CASE-XMF-03248	c11	N71-10604	NASA-CASE-XMS-00863	c05	N70-34857
NASA-CASE-XMF-03287	c15	N71-15607	NASA-CASE-XMS-00864	c05	N70-36493
NASA-CASE-XMF-03290	c15	N71-23256	NASA-CASE-XMS-00893	c07	N70-40063
NASA-CASE-XMF-03498	c15	N71-15986	NASA-CASE-XMS-00907	c02	N70-41630
NASA-CASE-XMF-03511	c15	N71-22799	NASA-CASE-XMS-00913	c10	N71-23543
NASA-CASE-XMF-03793	c15	N71-24833	NASA-CASE-XMS-00945	c09	N71-10798
NASA-CASE-XMF-03844-1	c14	N71-26474	NASA-CASE-XMS-01108	c15	N69-24322
NASA-CASE-XMF-03856	c31	N70-34159	NASA-CASE-XMS-01115	c05	N70-39922
NASA-CASE-XMF-03873	c06	N69-39733	NASA-CASE-XMS-01177	c05	N71-19440
NASA-CASE-XMF-03934	c09	N71-22985	NASA-CASE-XMS-01240	c05	N70-35152
NASA-CASE-XMF-03968	c14	N71-27186	NASA-CASE-XMS-01295-1	c37	N79-21345
NASA-CASE-XMF-03988	c15	N71-21403	NASA-CASE-XMS-01315	c09	N70-41675
NASA-CASE-XMF-04042	c15	N71-23023	NASA-CASE-XMS-01330	c37	N75-27376
NASA-CASE-XMF-04132	c15	N69-27502	NASA-CASE-XMS-01445	c12	N71-16031
NASA-CASE-XMF-04133	c06	N71-20717	NASA-CASE-XMS-01492	c05	N70-41297
NASA-CASE-XMF-04134	c14	N71-23755	NASA-CASE-XMS-01546	c14	N70-40233
NASA-CASE-XMF-04163	c02	N71-23007	NASA-CASE-XMS-01554	c10	N71-10578
NASA-CASE-XMF-04208	c33	N71-29051	NASA-CASE-XMS-01615	c05	N70-41329
NASA-CASE-XMF-04237	c33	N71-16278	NASA-CASE-XMS-01618	c14	N71-20741
NASA-CASE-XMF-04238	c09	N69-39734	NASA-CASE-XMS-01620	c23	N71-15673
NASA-CASE-XMF-04367	c09	N71-23545	NASA-CASE-XMS-01624	c15	N70-40062
NASA-CASE-XMF-04415	c14	N71-24693	NASA-CASE-XMS-01625	c15	N71-23022
NASA-CASE-XMF-04592-1	c20	N79-21125	NASA-CASE-XMS-01816	c33	N71-15623
NASA-CASE-XMF-04593-1	c20	N79-21125	NASA-CASE-XMS-01905	c12	N71-21089
NASA-CASE-XMF-04680	c15	N71-19489	NASA-CASE-XMS-01906	c31	N70-41373
NASA-CASE-XMF-04709	c15	N71-15609	NASA-CASE-XMS-01991	c09	N71-21449
NASA-CASE-XMF-04958-1	c10	N71-26414	NASA-CASE-XMS-01998-1	c14	N72-17326
NASA-CASE-XMF-04966	c14	N71-17658	NASA-CASE-XMS-02009	c33	N71-20834
NASA-CASE-XMF-05046	c33	N71-28892	NASA-CASE-XMS-02063	c03	N71-29044
NASA-CASE-XMF-05114	c15	N71-17650	NASA-CASE-XMS-02087	c09	N70-41717
NASA-CASE-XMF-05114-2	c15	N71-26148	NASA-CASE-XMS-02159	c10	N71-22961
NASA-CASE-XMF-05114-3	c15	N71-24865	NASA-CASE-XMS-02182	c10	N71-28783
NASA-CASE-XMF-05195	c10	N71-24861	NASA-CASE-XMS-02184	c15	N71-20813
NASA-CASE-XMF-05224	c14	N71-23726	NASA-CASE-XMS-02383	c15	N71-15918
NASA-CASE-XMF-05279	c18	N71-16124	NASA-CASE-XMS-02399	c05	N71-22896
NASA-CASE-XMF-05344	c31	N71-16345	NASA-CASE-XMS-02532	c15	N70-41808
NASA-CASE-XMF-05373-1	c33	N79-21264	NASA-CASE-XMS-02677	c31	N70-42075
NASA-CASE-XMF-05757-1	c31	N79-21227	NASA-CASE-XMS-02744	c33	N75-27249
NASA-CASE-XMF-05835	c08	N71-12504	NASA-CASE-XMS-02872	c05	N69-21925
NASA-CASE-XMF-05843	c03	N71-11055	NASA-CASE-XMS-02930	c11	N71-23042
NASA-CASE-XMF-05844	c14	N71-17587	NASA-CASE-XMS-02952	c18	N71-20742
NASA-CASE-XMF-05868	c26	N75-27125	NASA-CASE-XMS-02977	c11	N71-10746
NASA-CASE-XMF-05882	c35	N75-27329	NASA-CASE-XMS-03252	c15	N71-10658
NASA-CASE-XMF-05941	c31	N71-23912	NASA-CASE-XMS-03371	c05	N70-42000
NASA-CASE-XMF-05964-1	c20	N79-21124	NASA-CASE-XMS-03454	c09	N71-20658
NASA-CASE-XMF-05999	c15	N71-29032	NASA-CASE-XMS-03478	c14	N71-21040
NASA-CASE-XMF-06053	c26	N75-27126	NASA-CASE-XMS-03537	c15	N69-21471
NASA-CASE-XMF-06065	c15	N71-20395	NASA-CASE-XMS-03542	c09	N71-28926
NASA-CASE-XMF-06092	c07	N71-24612	NASA-CASE-XMS-03613	c31	N71-16346
NASA-CASE-XMF-06409	c06	N71-23230	NASA-CASE-XMS-03700	c15	N69-24266
NASA-CASE-XMF-06515	c14	N71-23227	NASA-CASE-XMS-03722	c15	N71-21530
NASA-CASE-XMF-06519	c09	N71-12519	NASA-CASE-XMS-03745	c15	N71-21076
NASA-CASE-XMF-06531	c14	N71-17575	NASA-CASE-XMS-03792	c14	N70-41812
NASA-CASE-XMF-06589	c05	N71-23159	NASA-CASE-XMS-04061-1	c09	N69-39885
NASA-CASE-XMF-06617	c09	N71-24843	NASA-CASE-XMS-04072	c15	N70-42017
NASA-CASE-XMF-06884-1	c20	N79-21123	NASA-CASE-XMS-04142	c31	N70-41631
NASA-CASE-XMF-06888	c15	N71-24044	NASA-CASE-XMS-04170	c05	N71-22748
NASA-CASE-XMF-06892	c09	N71-24805	NASA-CASE-XMS-04178	c15	N71-22798

NUMBER INDEX

NASA-CASE-XMS-04201	c14	N71-22990	NASA-CASE-XNP-00463	c33	N70-36847
NASA-CASE-XMS-04212-1	c05	N71-12346	NASA-CASE-XNP-00465	c21	N70-35395
NASA-CASE-XMS-04213-1	c09	N71-26002	NASA-CASE-XNP-00476	c15	N70-38620
NASA-CASE-XMS-04215-1	c09	N69-39987	NASA-CASE-XNP-00477	c08	N73-28045
NASA-CASE-XMS-04268	c33	N71-16277	NASA-CASE-XNP-00540	c09	N70-35382
NASA-CASE-XMS-04269	c16	N71-22895	NASA-CASE-XNP-00595	c15	N70-34967
NASA-CASE-XMS-04292	c15	N71-22722	NASA-CASE-XNP-00597	c18	N71-23088
NASA-CASE-XMS-04300	c09	N71-19479	NASA-CASE-XNP-00610	c28	N70-36910
NASA-CASE-XMS-04312	c07	N71-22984	NASA-CASE-XNP-00611	c09	N70-35219
NASA-CASE-XMS-04318	c15	N69-27871	NASA-CASE-XNP-00612	c11	N70-38182
NASA-CASE-XMS-04390	c31	N70-41871	NASA-CASE-XNP-00614	c14	N70-36907
NASA-CASE-XMS-04533	c15	N71-23086	NASA-CASE-XNP-00637	c14	N70-40273
NASA-CASE-XMS-04545	c15	N71-22878	NASA-CASE-XNP-00644	c03	N70-36803
NASA-CASE-XMS-04625	c05	N71-20718	NASA-CASE-XNP-00646	c14	N70-35666
NASA-CASE-XMS-04670	c54	N78-17678	NASA-CASE-XNP-00650	c27	N71-28929
NASA-CASE-XMS-04673-1	c54	N79-21766	NASA-CASE-XNP-00676	c15	N70-38996
NASA-CASE-XMS-04798	c11	N71-21474	NASA-CASE-XNP-00683	c09	N70-35425
NASA-CASE-XMS-04826	c28	N71-28849	NASA-CASE-XNP-00708	c14	N70-35394
NASA-CASE-XMS-04843	c03	N69-21469	NASA-CASE-XNP-00710	c15	N71-10778
NASA-CASE-XMS-04890-1	c15	N70-22192	NASA-CASE-XNP-00732	c28	N70-41447
NASA-CASE-XMS-04917	c14	N69-24257	NASA-CASE-XNP-00733	c06	N70-34946
NASA-CASE-XMS-04919	c09	N71-23270	NASA-CASE-XNP-00738	c09	N70-38201
NASA-CASE-XMS-04928	c54	N78-17679	NASA-CASE-XNP-00745	c10	N71-28960
NASA-CASE-XMS-04928-1	c54	N79-21765	NASA-CASE-XNP-00746	c07	N71-21476
NASA-CASE-XMS-04935	c05	N71-11190	NASA-CASE-XNP-00748	c07	N70-36911
NASA-CASE-XMS-05303	c07	N69-27462	NASA-CASE-XNP-00777	c10	N71-19469
NASA-CASE-XMS-05304	c05	N71-12336	NASA-CASE-XNP-00816	c28	N71-28928
NASA-CASE-XMS-05307	c09	N69-24330	NASA-CASE-XNP-00826	c03	N71-20895
NASA-CASE-XMS-05365	c14	N71-22993	NASA-CASE-XNP-00840	c15	N70-38225
NASA-CASE-XMS-05450-1	c07	N71-12391	NASA-CASE-XNP-00876	c28	N70-41311
NASA-CASE-XMS-05516	c15	N71-17803	NASA-CASE-XNP-00911	c08	N70-41961
NASA-CASE-XMS-05562-1	c09	N69-39986	NASA-CASE-XNP-00920	c15	N71-15906
NASA-CASE-XMS-05605-1	c10	N71-19468	NASA-CASE-XNP-00952	c10	N71-23271
NASA-CASE-XMS-05731	c35	N75-29382	NASA-CASE-XNP-01012	c08	N71-28925
NASA-CASE-XMS-05890	c09	N71-23191	NASA-CASE-XNP-01020	c03	N71-12260
NASA-CASE-XMS-05894-1	c15	N69-21924	NASA-CASE-XNP-01056	c14	N71-23041
NASA-CASE-XMS-05909-1	c14	N69-27459	NASA-CASE-XNP-01057	c07	N71-15907
NASA-CASE-XMS-05936	c14	N70-41682	NASA-CASE-XNP-01058	c09	N71-12540
NASA-CASE-XMS-06056-1	c23	N71-24857	NASA-CASE-XNP-01059	c23	N71-12821
NASA-CASE-XMS-06061	c05	N71-23317	NASA-CASE-XNP-01068	c10	N71-28739
NASA-CASE-XMS-06064	c05	N71-23096	NASA-CASE-XNP-01104	c28	N70-39931
NASA-CASE-XMS-06162	c31	N71-28851	NASA-CASE-XNP-01107	c10	N71-28859
NASA-CASE-XMS-06236	c14	N71-21007	NASA-CASE-XNP-01152	c15	N70-41811
NASA-CASE-XMS-06329-1	c15	N71-20441	NASA-CASE-XNP-01153	c32	N71-17645
NASA-CASE-XMS-06497	c14	N71-26244	NASA-CASE-XNP-01185	c26	N73-28710
NASA-CASE-XMS-06740-1	c07	N71-26579	NASA-CASE-XNP-01187	c15	N73-28516
NASA-CASE-XMS-06761	c05	N69-23192	NASA-CASE-XNP-01188	c15	N73-32361
NASA-CASE-XMS-06767-1	c14	N71-20435	NASA-CASE-XNP-01193	c10	N71-16057
NASA-CASE-XMS-06782	c32	N71-15974	NASA-CASE-XNP-01263-2	c15	N71-26312
NASA-CASE-XMS-06876	c15	N71-21536	NASA-CASE-XNP-01296	c33	N75-27250
NASA-CASE-XMS-06949	c09	N69-21467	NASA-CASE-XNP-01306	c07	N71-20814
NASA-CASE-XMS-07168	c07	N71-11300	NASA-CASE-XNP-01306-2	c09	N71-24596
NASA-CASE-XMS-07487	c15	N71-23255	NASA-CASE-XNP-01307	c21	N70-41856
NASA-CASE-XMS-07846-1	c09	N69-21927	NASA-CASE-XNP-01310	c33	N71-28852
NASA-CASE-XMS-08589-1	c09	N71-20569	NASA-CASE-XNP-01311	c26	N75-29236
NASA-CASE-XMS-09310	c15	N71-22706	NASA-CASE-XNP-01318	c10	N71-23033
NASA-CASE-XMS-09352	c09	N71-23316	NASA-CASE-XNP-01328	c26	N71-18064
NASA-CASE-XMS-09571	c05	N71-19439	NASA-CASE-XNP-01383	c09	N71-10659
NASA-CASE-XMS-09610	c07	N71-24625	NASA-CASE-XNP-01390	c28	N70-41275
NASA-CASE-XMS-09632-1	c05	N71-11203	NASA-CASE-XNP-01412	c15	N70-42034
NASA-CASE-XMS-09635	c05	N71-24623	NASA-CASE-XNP-01458	c04	N78-17031
NASA-CASE-XMS-09636	c05	N71-12344	NASA-CASE-XNP-01464	c03	N71-10728
NASA-CASE-XMS-09637-1	c05	N71-24730	NASA-CASE-XNP-01466	c10	N71-26434
NASA-CASE-XMS-09652-1	c05	N71-26333	NASA-CASE-XNP-01472	c14	N70-41807
NASA-CASE-XMS-09653	c54	N78-17680	NASA-CASE-XNP-01501	c21	N70-41930
NASA-CASE-XMS-09690	c33	N72-25913	NASA-CASE-XNP-01567	c15	N70-41310
NASA-CASE-XMS-09691-1	c18	N71-15545	NASA-CASE-XNP-01641	c15	N71-22997
NASA-CASE-XMS-10269	c05	N71-24147	NASA-CASE-XNP-01659	c14	N71-23039
NASA-CASE-XMS-10660-1	c15	N71-25975	NASA-CASE-XNP-01660	c14	N71-23036
NASA-CASE-XMS-10984-1	c10	N71-19417	NASA-CASE-XNP-01735	c07	N71-22750
NASA-CASE-XMS-10993	c15	N71-28936	NASA-CASE-XNP-01747	c15	N71-23024
NASA-CASE-XMS-12158-1	c31	N69-27499	NASA-CASE-XNP-01749	c27	N70-41897
NASA-CASE-XMS-13052	c14	N71-20427	NASA-CASE-XNP-01753	c08	N71-22897
			NASA-CASE-XNP-01848	c15	N71-28959
NASA-CASE-XNP-00214	c15	N70-36908	NASA-CASE-XNP-01855	c15	N71-28937
NASA-CASE-XNP-00217	c28	N70-38181	NASA-CASE-XNP-01951	c09	N70-41929
NASA-CASE-XNP-00234	c28	N70-38645	NASA-CASE-XNP-01954	c28	N71-28850
NASA-CASE-XNP-00249	c28	N70-38249	NASA-CASE-XNP-01959	c26	N71-23043
NASA-CASE-XNP-00250	c11	N71-28779	NASA-CASE-XNP-01960	c09	N71-23027
NASA-CASE-XNP-00294	c21	N70-36938	NASA-CASE-XNP-01961	c26	N71-29156
NASA-CASE-XNP-00384	c09	N71-13530	NASA-CASE-XNP-01962	c32	N70-41370
NASA-CASE-XNP-00416	c15	N70-36947	NASA-CASE-XNP-02029	c14	N70-41955
NASA-CASE-XNP-00425	c11	N70-38202	NASA-CASE-XNP-02092	c15	N70-42033
NASA-CASE-XNP-00431	c09	N70-38998	NASA-CASE-XNP-02139	c18	N71-24184
NASA-CASE-XNP-00432	c08	N70-35423	NASA-CASE-XNP-02140	c09	N71-23097
NASA-CASE-XNP-00438	c21	N70-35089	NASA-CASE-XNP-02251	c12	N71-20896
NASA-CASE-XNP-00449	c14	N70-35220	NASA-CASE-XNP-02278	c15	N71-28951
NASA-CASE-XNP-00450	c15	N70-38603	NASA-CASE-XNP-02340	c23	N69-24332
NASA-CASE-XNP-00459	c11	N70-38675	NASA-CASE-XNP-02341	c15	N71-21531

NUMBER INDEX

NASA-CASE-IXNP-02389	.....	c07	N71-28900	NASA-CASE-IXNP-06032	.....	c09	N69-21926
NASA-CASE-IXNP-02500	.....	c18	N71-27397	NASA-CASE-IXNP-06234	.....	c10	N71-27137
NASA-CASE-IXNP-02507	.....	c31	N71-17679	NASA-CASE-IXNP-06503	.....	c23	N71-29049
NASA-CASE-IXNP-02588	.....	c15	N71-18613	NASA-CASE-IXNP-06505	.....	c10	N71-24799
NASA-CASE-IXNP-02592	.....	c24	N71-20518	NASA-CASE-IXNP-06506	.....	c03	N71-11050
NASA-CASE-IXNP-02595	.....	c31	N71-21881	NASA-CASE-IXNP-06507	.....	c09	N71-23548
NASA-CASE-IXNP-02654	.....	c10	N70-42032	NASA-CASE-IXNP-06508	.....	c18	N69-39895
NASA-CASE-IXNP-02713	.....	c10	N69-39888	NASA-CASE-IXNP-06509	.....	c14	N71-23226
NASA-CASE-IXNP-02723	.....	c07	N70-41680	NASA-CASE-IXNP-06510	.....	c14	N71-23797
NASA-CASE-IXNP-02748	.....	c08	N71-22749	NASA-CASE-IXNP-06611	.....	c07	N71-26102
NASA-CASE-IXNP-02778	.....	c08	N71-22710	NASA-CASE-IXNP-06914	.....	c15	N71-21489
NASA-CASE-IXNP-02791	.....	c07	N71-23026	NASA-CASE-IXNP-06933	.....	c14	N73-32321
NASA-CASE-IXNP-02792	.....	c14	N71-28958	NASA-CASE-IXNP-06936	.....	c15	N71-24695
NASA-CASE-IXNP-02839	.....	c28	N70-41922	NASA-CASE-IXNP-06937	.....	c09	N71-19516
NASA-CASE-IXNP-02862-1	.....	c15	N71-26294	NASA-CASE-IXNP-06942	.....	c28	N71-23293
NASA-CASE-IXNP-02888	.....	c18	N71-21068	NASA-CASE-IXNP-06957	.....	c14	N71-21088
NASA-CASE-IXNP-02899-1	.....	c33	N79-21265	NASA-CASE-IXNP-07040	.....	c08	N71-12500
NASA-CASE-IXNP-02923	.....	c28	N71-23081	NASA-CASE-IXNP-07169	.....	c15	N73-32362
NASA-CASE-IXNP-02982	.....	c31	N70-41855	NASA-CASE-IXNP-07477	.....	c09	N71-26092
NASA-CASE-IXNP-02983	.....	c14	N71-21091	NASA-CASE-IXNP-07478	.....	c14	N69-21923
NASA-CASE-IXNP-03063	.....	c17	N71-23365	NASA-CASE-IXNP-07481	.....	c25	N69-21929
NASA-CASE-IXNP-03128	.....	c10	N70-41991	NASA-CASE-IXNP-07659	.....	c06	N71-22975
NASA-CASE-IXNP-03134	.....	c07	N71-10676	NASA-CASE-IXNP-08124	.....	c15	N71-27184
NASA-CASE-IXNP-03250	.....	c06	N71-23500	NASA-CASE-IXNP-08124-2	.....	c06	N73-13129
NASA-CASE-IXNP-03263	.....	c09	N71-18843	NASA-CASE-IXNP-08274	.....	c10	N71-13537
NASA-CASE-IXNP-03282	.....	c28	N72-20758	NASA-CASE-IXNP-08567	.....	c09	N71-26000
NASA-CASE-IXNP-03332	.....	c09	N71-10618	NASA-CASE-IXNP-08680	.....	c14	N71-22995
NASA-CASE-IXNP-03378	.....	c03	N71-11051	NASA-CASE-IXNP-08832	.....	c08	N71-12506
NASA-CASE-IXNP-03413	.....	c03	N71-26726	NASA-CASE-IXNP-08836	.....	c09	N71-12515
NASA-CASE-IXNP-03459	.....	c15	N71-21078	NASA-CASE-IXNP-08837	.....	c18	N71-16210
NASA-CASE-IXNP-03459-2	.....	c18	N71-15688	NASA-CASE-IXNP-08840	.....	c23	N71-16365
NASA-CASE-IXNP-03578	.....	c11	N71-23030	NASA-CASE-IXNP-08875	.....	c10	N71-23099
NASA-CASE-IXNP-03623	.....	c09	N73-28084	NASA-CASE-IXNP-08876	.....	c17	N73-28573
NASA-CASE-IXNP-03637	.....	c15	N71-21311	NASA-CASE-IXNP-08877	.....	c15	N71-23025
NASA-CASE-IXNP-03692	.....	c28	N71-24321	NASA-CASE-IXNP-08880	.....	c09	N71-24808
NASA-CASE-IXNP-03744	.....	c10	N71-20448	NASA-CASE-IXNP-08881	.....	c17	N71-28747
NASA-CASE-IXNP-03796	.....	c23	N71-15467	NASA-CASE-IXNP-08882	.....	c15	N69-39935
NASA-CASE-IXNP-03835	.....	c06	N71-23499	NASA-CASE-IXNP-08883	.....	c23	N71-16101
NASA-CASE-IXNP-03853	.....	c23	N71-21882	NASA-CASE-IXNP-08897	.....	c15	N71-17694
NASA-CASE-IXNP-03878	.....	c26	N75-27127	NASA-CASE-IXNP-08907	.....	c23	N71-29123
NASA-CASE-IXNP-03914	.....	c21	N71-10771	NASA-CASE-IXNP-08961	.....	c14	N71-24809
NASA-CASE-IXNP-03916	.....	c09	N71-28810	NASA-CASE-IXNP-09205	.....	c14	N71-17657
NASA-CASE-IXNP-03918	.....	c14	N71-23087	NASA-CASE-IXNP-09225	.....	c09	N69-24333
NASA-CASE-IXNP-03930	.....	c14	N69-24331	NASA-CASE-IXNP-09227	.....	c15	N69-24319
NASA-CASE-IXNP-03972	.....	c15	N71-23048	NASA-CASE-IXNP-09228	.....	c09	N69-27500
NASA-CASE-IXNP-04023	.....	c06	N71-28808	NASA-CASE-IXNP-09450	.....	c10	N71-18723
NASA-CASE-IXNP-04067	.....	c08	N71-22707	NASA-CASE-IXNP-09451	.....	c06	N71-26754
NASA-CASE-IXNP-04111	.....	c14	N71-15622	NASA-CASE-IXNP-09452	.....	c15	N69-27504
NASA-CASE-IXNP-04124	.....	c28	N71-21822	NASA-CASE-IXNP-09453	.....	c08	N71-19420
NASA-CASE-IXNP-04148	.....	c17	N71-24830	NASA-CASE-IXNP-09461	.....	c28	N72-23809
NASA-CASE-IXNP-04161	.....	c14	N71-15599	NASA-CASE-IXNP-09462	.....	c14	N71-17584
NASA-CASE-IXNP-04162-1	.....	c08	N70-34675	NASA-CASE-IXNP-09469	.....	c24	N71-25555
NASA-CASE-IXNP-04167-2	.....	c25	N72-24753	NASA-CASE-IXNP-09572	.....	c14	N71-15621
NASA-CASE-IXNP-04167-3	.....	c36	N77-19416	NASA-CASE-IXNP-09698	.....	c15	N71-18580
NASA-CASE-IXNP-04180	.....	c07	N69-39736	NASA-CASE-IXNP-09699	.....	c06	N71-24607
NASA-CASE-IXNP-04183	.....	c09	N69-24329	NASA-CASE-IXNP-09701	.....	c14	N71-26475
NASA-CASE-IXNP-04231	.....	c14	N73-32325	NASA-CASE-IXNP-09702	.....	c15	N71-17654
NASA-CASE-IXNP-04262-2	.....	c17	N71-26773	NASA-CASE-IXNP-09704	.....	c12	N71-18615
NASA-CASE-IXNP-04264	.....	c03	N69-21337	NASA-CASE-IXNP-09744	.....	c27	N71-16392
NASA-CASE-IXNP-04338	.....	c17	N71-23046	NASA-CASE-IXNP-09750	.....	c14	N69-39937
NASA-CASE-IXNP-04339	.....	c17	N71-29137	NASA-CASE-IXNP-09752	.....	c14	N69-21541
NASA-CASE-IXNP-04389	.....	c28	N71-20942	NASA-CASE-IXNP-09755	.....	c46	N74-23069
NASA-CASE-IXNP-04623	.....	c10	N71-26103	NASA-CASE-IXNP-09759	.....	c08	N71-24891
NASA-CASE-IXNP-04731	.....	c15	N71-24042	NASA-CASE-IXNP-09763	.....	c14	N71-20461
NASA-CASE-IXNP-04732	.....	c09	N71-20851	NASA-CASE-IXNP-09768	.....	c09	N71-12516
NASA-CASE-IXNP-04758	.....	c03	N71-24605	NASA-CASE-IXNP-09770	.....	c15	N71-20440
NASA-CASE-IXNP-04780	.....	c08	N71-19687	NASA-CASE-IXNP-09770-2	.....	c15	N72-22483
NASA-CASE-IXNP-04816	.....	c06	N69-39936	NASA-CASE-IXNP-09770-3	.....	c11	N71-27036
NASA-CASE-IXNP-04817	.....	c14	N71-23225	NASA-CASE-IXNP-09771	.....	c09	N71-24841
NASA-CASE-IXNP-04819	.....	c08	N71-23295	NASA-CASE-IXNP-09775	.....	c09	N71-20445
NASA-CASE-IXNP-04969	.....	c11	N69-27466	NASA-CASE-IXNP-09776	.....	c09	N69-39929
NASA-CASE-IXNP-05082	.....	c15	N70-41960	NASA-CASE-IXNP-09785	.....	c08	N69-21928
NASA-CASE-IXNP-05219	.....	c16	N71-15550	NASA-CASE-IXNP-09802	.....	c33	N71-15641
NASA-CASE-IXNP-05231	.....	c14	N73-28491	NASA-CASE-IXNP-09808	.....	c09	N71-12518
NASA-CASE-IXNP-05254	.....	c07	N71-20791	NASA-CASE-IXNP-09830	.....	c07	N71-26102
NASA-CASE-IXNP-05297	.....	c15	N71-23811	NASA-CASE-IXNP-09830	.....	c14	N71-26266
NASA-CASE-IXNP-05381	.....	c09	N71-20842	NASA-CASE-IXNP-09832	.....	c30	N71-23723
NASA-CASE-IXNP-05382	.....	c10	N71-23544	NASA-CASE-IXNP-10007-1	.....	c46	N74-23068
NASA-CASE-IXNP-05415	.....	c08	N71-12505	NASA-CASE-IXNP-10475	.....	c15	N71-24679
NASA-CASE-IXNP-05429	.....	c26	N71-21824	NASA-CASE-IXNP-10830	.....	c07	N71-11281
NASA-CASE-IXNP-05524	.....	c33	N71-24876	NASA-CASE-IXNP-10843	.....	c07	N71-11267
NASA-CASE-IXNP-05530	.....	c14	N73-32321	NASA-CASE-IXNP-10854	.....	c10	N71-26331
NASA-CASE-IXNP-05535	.....	c14	N71-23040				
NASA-CASE-IXNP-05612	.....	c09	N69-21468				
NASA-CASE-IXNP-05634	.....	c15	N71-24834				
NASA-CASE-IXNP-05821	.....	c03	N71-11056	US-PATENT-APPL-SN-0914	.....	c28	N70-38711
NASA-CASE-IXNP-05975	.....	c15	N69-23185	US-PATENT-APPL-SN-2792	.....	c14	N70-33386
NASA-CASE-IXNP-06028	.....	c09	N71-23189	US-PATENT-APPL-SN-3151	.....	c05	N72-27102
NASA-CASE-IXNP-06031	.....	c15	N71-15606	US-PATENT-APPL-SN-3417	.....	c15	N72-22490

NUMBER INDEX

US-PATENT-APPL-SN-3418	.....	c15	N72-20446	US-PATENT-APPL-SN-37050	.....	c33	N74-26732
US-PATENT-APPL-SN-3418	.....	c15	N73-19457	US-PATENT-APPL-SN-38262	.....	c28	N70-35422
US-PATENT-APPL-SN-3654	.....	c14	N72-21406	US-PATENT-APPL-SN-38814	.....	c15	N72-11385
US-PATENT-APPL-SN-3654	.....	c35	N77-27367	US-PATENT-APPL-SN-38816	.....	c70	N74-13436
US-PATENT-APPL-SN-3696	.....	c10	N72-20224	US-PATENT-APPL-SN-38816	.....	c74	N78-15879
US-PATENT-APPL-SN-5114	.....	c06	N72-25150	US-PATENT-APPL-SN-39185	.....	c16	N72-25485
US-PATENT-APPL-SN-6610	.....	c15	N72-22492	US-PATENT-APPL-SN-39342	.....	c09	N72-25252
US-PATENT-APPL-SN-6615	.....	c03	N72-25019	US-PATENT-APPL-SN-39343	.....	c34	N74-18552
US-PATENT-APPL-SN-6616	.....	c03	N72-22042	US-PATENT-APPL-SN-39344	.....	c14	N72-25409
US-PATENT-APPL-SN-6617	.....	c15	N72-22488	US-PATENT-APPL-SN-39755	.....	c08	N72-21198
US-PATENT-APPL-SN-7668	.....	c15	N71-26611	US-PATENT-APPL-SN-41345	.....	c09	N72-29172
US-PATENT-APPL-SN-7669	.....	c31	N72-18859	US-PATENT-APPL-SN-41346	.....	c15	N72-24522
US-PATENT-APPL-SN-7867	.....	c14	N72-17324	US-PATENT-APPL-SN-41347	.....	c09	N72-25256
US-PATENT-APPL-SN-7868	.....	c10	N72-17173	US-PATENT-APPL-SN-41348	.....	c09	N72-23173
US-PATENT-APPL-SN-8203	.....	c15	N70-33180	US-PATENT-APPL-SN-41404	.....	c03	N73-20039
US-PATENT-APPL-SN-8204	.....	c31	N70-37981	US-PATENT-APPL-SN-41430	.....	c10	N72-20221
US-PATENT-APPL-SN-8497	.....	c14	N72-11363	US-PATENT-APPL-SN-41431	.....	c37	N77-27400
US-PATENT-APPL-SN-8498	.....	c05	N71-24729	US-PATENT-APPL-SN-41455	.....	c02	N70-33255
US-PATENT-APPL-SN-8636	.....	c15	N72-25451	US-PATENT-APPL-SN-42022	.....	c15	N70-35409
US-PATENT-APPL-SN-8650	.....	c03	N72-25021	US-PATENT-APPL-SN-42088	.....	c34	N78-17336
US-PATENT-APPL-SN-9251	.....	c03	N70-34646	US-PATENT-APPL-SN-43327	.....	c15	N72-26371
US-PATENT-APPL-SN-10161	.....	c33	N72-20915	US-PATENT-APPL-SN-43883	.....	c18	N73-30532
US-PATENT-APPL-SN-10329	.....	c09	N72-25251	US-PATENT-APPL-SN-43884	.....	c15	N72-25457
US-PATENT-APPL-SN-10812	.....	c28	N70-40367	US-PATENT-APPL-SN-45053	.....	c33	N75-31330
US-PATENT-APPL-SN-10827	.....	c14	N72-28436	US-PATENT-APPL-SN-45519	.....	c14	N72-25410
US-PATENT-APPL-SN-11220	.....	c14	N73-30389	US-PATENT-APPL-SN-45549	.....	c27	N76-16228
US-PATENT-APPL-SN-11853	.....	c15	N71-28951	US-PATENT-APPL-SN-47061	.....	c26	N72-25680
US-PATENT-APPL-SN-12661	.....	c14	N72-22437	US-PATENT-APPL-SN-47062	.....	c15	N72-17451
US-PATENT-APPL-SN-13266	.....	c05	N72-23085	US-PATENT-APPL-SN-47063	.....	c33	N72-25911
US-PATENT-APPL-SN-14488	.....	c09	N70-38995	US-PATENT-APPL-SN-47063	.....	c33	N73-25952
US-PATENT-APPL-SN-15019	.....	c15	N72-17455	US-PATENT-APPL-SN-47120	.....	c31	N70-33242
US-PATENT-APPL-SN-15020	.....	c14	N70-34697	US-PATENT-APPL-SN-47121	.....	c09	N70-39915
US-PATENT-APPL-SN-15022	.....	c15	N72-21465	US-PATENT-APPL-SN-47122	.....	c14	N70-38813
US-PATENT-APPL-SN-15023	.....	c15	N70-34699	US-PATENT-APPL-SN-47123	.....	c15	N70-34817
US-PATENT-APPL-SN-15024	.....	c09	N72-21245	US-PATENT-APPL-SN-47440	.....	c07	N73-20174
US-PATENT-APPL-SN-15025	.....	c03	N72-20033	US-PATENT-APPL-SN-47441	.....	c09	N70-38559
US-PATENT-APPL-SN-15222	.....	c18	N72-25539	US-PATENT-APPL-SN-47443	.....	c09	N72-17152
US-PATENT-APPL-SN-16808	.....	c14	N72-22445	US-PATENT-APPL-SN-48621	.....	c20	N78-32179
US-PATENT-APPL-SN-17101	.....	c28	N72-18766	US-PATENT-APPL-SN-50206	.....	c07	N72-17109
US-PATENT-APPL-SN-18427	.....	c09	N72-23172	US-PATENT-APPL-SN-50207	.....	c07	N72-20141
US-PATENT-APPL-SN-18776	.....	c28	N70-33284	US-PATENT-APPL-SN-50208	.....	c14	N73-13418
US-PATENT-APPL-SN-18780	.....	c12	N70-33305	US-PATENT-APPL-SN-50339	.....	c04	N72-33072
US-PATENT-APPL-SN-18982	.....	c28	N72-11708	US-PATENT-APPL-SN-51317	.....	c14	N73-30389
US-PATENT-APPL-SN-19572	.....	c35	N77-27368	US-PATENT-APPL-SN-51473	.....	c02	N70-33266
US-PATENT-APPL-SN-19585	.....	c15	N72-25455	US-PATENT-APPL-SN-51477	.....	c14	N72-25412
US-PATENT-APPL-SN-19971	.....	c09	N70-33312	US-PATENT-APPL-SN-53156	.....	c10	N71-28860
US-PATENT-APPL-SN-20960	.....	c15	N72-17453	US-PATENT-APPL-SN-54270	.....	c07	N72-25173
US-PATENT-APPL-SN-21263	.....	c01	N71-12217	US-PATENT-APPL-SN-54271	.....	c02	N73-19004
US-PATENT-APPL-SN-21508	.....	c08	N72-20176	US-PATENT-APPL-SN-54540	.....	c15	N72-29488
US-PATENT-APPL-SN-21644	.....	c05	N72-22092	US-PATENT-APPL-SN-54540	.....	c37	N74-15125
US-PATENT-APPL-SN-21732	.....	c15	N70-26819	US-PATENT-APPL-SN-54552	.....	c27	N70-34783
US-PATENT-APPL-SN-21906	.....	c09	N72-17157	US-PATENT-APPL-SN-54552	.....	c20	N77-17143
US-PATENT-APPL-SN-22265	.....	c14	N72-21405	US-PATENT-APPL-SN-55333	.....	c10	N73-16206
US-PATENT-APPL-SN-22320	.....	c14	N72-11365	US-PATENT-APPL-SN-55534	.....	c11	N72-25288
US-PATENT-APPL-SN-23132	.....	c08	N72-22163	US-PATENT-APPL-SN-55535	.....	c14	N73-20474
US-PATENT-APPL-SN-23532	.....	c07	N72-21117	US-PATENT-APPL-SN-55536	.....	c14	N72-29464
US-PATENT-APPL-SN-24154	.....	c15	N70-35679	US-PATENT-APPL-SN-55537	.....	c18	N72-25540
US-PATENT-APPL-SN-24154	.....	c15	N72-17450	US-PATENT-APPL-SN-55806	.....	c06	N72-31140
US-PATENT-APPL-SN-24155	.....	c14	N73-26432	US-PATENT-APPL-SN-56791	.....	c10	N72-16172
US-PATENT-APPL-SN-24224	.....	c09	N72-20200	US-PATENT-APPL-SN-57252	.....	c14	N72-25414
US-PATENT-APPL-SN-25175	.....	c28	N70-39895	US-PATENT-APPL-SN-57253	.....	c18	N72-25541
US-PATENT-APPL-SN-25487	.....	c08	N72-21197	US-PATENT-APPL-SN-57399	.....	c03	N72-20034
US-PATENT-APPL-SN-25488	.....	c08	N72-25206	US-PATENT-APPL-SN-58147	.....	c28	N70-33356
US-PATENT-APPL-SN-26375	.....	c02	N70-33286	US-PATENT-APPL-SN-59892	.....	c06	N73-30097
US-PATENT-APPL-SN-26375	.....	c02	N70-34858	US-PATENT-APPL-SN-59892	.....	c15	N74-27360
US-PATENT-APPL-SN-26573	.....	c31	N72-22874	US-PATENT-APPL-SN-59893	.....	c15	N72-25456
US-PATENT-APPL-SN-27340	.....	c15	N72-20442	US-PATENT-APPL-SN-59894	.....	c23	N73-13662
US-PATENT-APPL-SN-28175	.....	c21	N70-33279	US-PATENT-APPL-SN-59895	.....	c15	N72-20445
US-PATENT-APPL-SN-28235	.....	c10	N72-17171	US-PATENT-APPL-SN-59956	.....	c14	N72-27411
US-PATENT-APPL-SN-29917	.....	c15	N73-13465	US-PATENT-APPL-SN-59966	.....	c21	N72-25595
US-PATENT-APPL-SN-29917	.....	c26	N74-10521	US-PATENT-APPL-SN-59968	.....	c15	N72-27484
US-PATENT-APPL-SN-29917	.....	c37	N74-13179	US-PATENT-APPL-SN-59969	.....	c09	N72-25249
US-PATENT-APPL-SN-29979	.....	c09	N75-15662	US-PATENT-APPL-SN-60276	.....	c22	N73-32528
US-PATENT-APPL-SN-30498	.....	c37	N74-21063	US-PATENT-APPL-SN-60531	.....	c28	N70-37980
US-PATENT-APPL-SN-31242	.....	c28	N70-33374	US-PATENT-APPL-SN-60536	.....	c02	N70-38009
US-PATENT-APPL-SN-31702	.....	c16	N73-16536	US-PATENT-APPL-SN-60876	.....	c15	N72-27485
US-PATENT-APPL-SN-31703	.....	c09	N72-21244	US-PATENT-APPL-SN-60881	.....	c32	N72-25877
US-PATENT-APPL-SN-31885	.....	c10	N72-17172	US-PATENT-APPL-SN-60882	.....	c05	N73-32011
US-PATENT-APPL-SN-32496	.....	c15	N70-37925	US-PATENT-APPL-SN-60883	.....	c10	N73-13235
US-PATENT-APPL-SN-32664	.....	c11	N72-25287	US-PATENT-APPL-SN-60950	.....	c04	N73-27052
US-PATENT-APPL-SN-32665	.....	c14	N72-22444	US-PATENT-APPL-SN-61329	.....	c31	N70-37986
US-PATENT-APPL-SN-33159	.....	c10	N72-11256	US-PATENT-APPL-SN-61535	.....	c15	N72-25453
US-PATENT-APPL-SN-33398	.....	c14	N70-35587	US-PATENT-APPL-SN-61894	.....	c12	N72-21310
US-PATENT-APPL-SN-33535	.....	c06	N72-17093	US-PATENT-APPL-SN-61895	.....	c07	N72-33146
US-PATENT-APPL-SN-34989	.....	c36	N74-13205	US-PATENT-APPL-SN-63144	.....	c16	N72-28521
US-PATENT-APPL-SN-36531	.....	c07	N72-25174	US-PATENT-APPL-SN-63195	.....	c14	N72-27408
US-PATENT-APPL-SN-36534	.....	c21	N73-14692	US-PATENT-APPL-SN-63383	.....	c08	N72-20177
US-PATENT-APPL-SN-36819	.....	c23	N72-22673	US-PATENT-APPL-SN-63384	.....	c05	N72-22093
US-PATENT-APPL-SN-36926	.....	c28	N72-23810	US-PATENT-APPL-SN-63532	.....	c08	N72-25209

DUBBER INDEX

US-PATENT-APPL-SN-63610	c06 N72-25147	US-PATENT-APPL-SN-94374	c14 N72-25411
US-PATENT-APPL-SN-64224	c17 N70-38490	US-PATENT-APPL-SN-94952	c14 N70-38158
US-PATENT-APPL-SN-64226	c17 N70-38198	US-PATENT-APPL-SN-95183	c08 N73-12175
US-PATENT-APPL-SN-64391	c31 N72-25842	US-PATENT-APPL-SN-95189	c74 N77-21941
US-PATENT-APPL-SN-64709	c10 N72-28240	US-PATENT-APPL-SN-97112	c21 N70-38539
US-PATENT-APPL-SN-64723	c07 N72-25170	US-PATENT-APPL-SN-97343	c10 N72-27246
US-PATENT-APPL-SN-65548	c18 N70-39897	US-PATENT-APPL-SN-97472	c14 N73-28487
US-PATENT-APPL-SN-65840	c10 N72-20225	US-PATENT-APPL-SN-97829	c06 N73-13129
US-PATENT-APPL-SN-66004	c15 N72-25450	US-PATENT-APPL-SN-98517	c09 N72-25250
US-PATENT-APPL-SN-66206	c11 N73-13257	US-PATENT-APPL-SN-98640	c09 N72-25253
US-PATENT-APPL-SN-67730	c15 N73-13463	US-PATENT-APPL-SN-98772	c08 N73-12176
US-PATENT-APPL-SN-67815	c28 N72-22771	US-PATENT-APPL-SN-98773	c15 N72-22486
US-PATENT-APPL-SN-68023	c05 N72-33096	US-PATENT-APPL-SN-98774	c14 N73-19419
US-PATENT-APPL-SN-68024	c17 N72-22535	US-PATENT-APPL-SN-98798	c09 N73-13209
US-PATENT-APPL-SN-69209	c15 N72-21463	US-PATENT-APPL-SN-99174	c14 N72-33377
US-PATENT-APPL-SN-69488	c23 N75-14834	US-PATENT-APPL-SN-99175	c09 N72-25258
US-PATENT-APPL-SN-70032	c11 N73-12264	US-PATENT-APPL-SN-99198	c31 N73-32749
US-PATENT-APPL-SN-70967	c07 N73-13149	US-PATENT-APPL-SN-99201	c15 N73-25512
US-PATENT-APPL-SN-70967	c32 N74-10132	US-PATENT-APPL-SN-99201	c37 N74-20063
US-PATENT-APPL-SN-71047	c09 N72-21247	US-PATENT-APPL-SN-99524	c06 N72-27144
US-PATENT-APPL-SN-71048	c18 N73-12604	US-PATENT-APPL-SN-99901	c37 N74-10474
US-PATENT-APPL-SN-71366	c17 N71-20941	US-PATENT-APPL-SN-99903	c11 N73-12265
US-PATENT-APPL-SN-72024	c09 N73-12211	US-PATENT-APPL-SN-002925	c33 N79-17135
US-PATENT-APPL-SN-73283	c15 N72-28495	US-PATENT-APPL-SN-003693	c52 N79-15576
US-PATENT-APPL-SN-73310	c09 N72-25247	US-PATENT-APPL-SN-006952	c26 N79-21183
US-PATENT-APPL-SN-73367	c14 N71-15969	US-PATENT-APPL-SN-007083	c26 N79-19145
US-PATENT-APPL-SN-73422	c15 N72-25454	US-PATENT-APPL-SN-008207	c32 N79-17068
US-PATENT-APPL-SN-73834	c15 N72-23497	US-PATENT-APPL-SN-008208	c37 N79-17217
US-PATENT-APPL-SN-73922	c14 N73-25461	US-PATENT-APPL-SN-008209	c32 N79-17067
US-PATENT-APPL-SN-73932	c15 N72-22485	US-PATENT-APPL-SN-008211	c74 N79-17683
US-PATENT-APPL-SN-74759	c14 N73-20478	US-PATENT-APPL-SN-008212	c44 N79-17315
US-PATENT-APPL-SN-74861	c27 N72-25699	US-PATENT-APPL-SN-009886	c54 N79-19688
US-PATENT-APPL-SN-74862	c27 N73-16764	US-PATENT-APPL-SN-009887	c44 N79-18455
US-PATENT-APPL-SN-75431	c21 N72-31637	US-PATENT-APPL-SN-009888	c37 N79-19364
US-PATENT-APPL-SN-76899	c09 N72-22201	US-PATENT-APPL-SN-009889	c33 N79-17134
US-PATENT-APPL-SN-77169	c14 N72-21408	US-PATENT-APPL-SN-011737	c27 N79-19160
US-PATENT-APPL-SN-77220	c14 N72-27409	US-PATENT-APPL-SN-014664	c44 N79-18446
US-PATENT-APPL-SN-77221	c08 N72-25210	US-PATENT-APPL-SN-015983	c02 N79-17797
US-PATENT-APPL-SN-77251	c25 N70-41628	US-PATENT-APPL-SN-015995	c08 N79-20135
US-PATENT-APPL-SN-77252	c02 N70-37939	US-PATENT-APPL-SN-015996	c08 N79-20136
US-PATENT-APPL-SN-77256	c15 N70-33323	US-PATENT-APPL-SN-017884	c44 N79-18445
US-PATENT-APPL-SN-77786	c14 N72-27412	US-PATENT-APPL-SN-017885	c32 N79-19195
US-PATENT-APPL-SN-77869	c37 N79-21345	US-PATENT-APPL-SN-017886	c33 N79-18228
US-PATENT-APPL-SN-78065	c08 N72-22162	US-PATENT-APPL-SN-017887	c32 N79-18154
US-PATENT-APPL-SN-78703	c15 N73-20514	US-PATENT-APPL-SN-017888	c51 N79-21743
US-PATENT-APPL-SN-78704	c05 N72-25121	US-PATENT-APPL-SN-017890	c32 N79-18155
US-PATENT-APPL-SN-78717	c05 N73-13114	US-PATENT-APPL-SN-019541	c02 N79-17813
US-PATENT-APPL-SN-78766	c05 N74-10907	US-PATENT-APPL-SN-023439	c54 N79-20746
US-PATENT-APPL-SN-80029	c14 N73-32320	US-PATENT-APPL-SN-023484	c33 N79-20315
US-PATENT-APPL-SN-80029	c74 N74-20008	US-PATENT-APPL-SN-023485	c36 N79-21336
US-PATENT-APPL-SN-80368	c09 N73-20231	US-PATENT-APPL-SN-025162	c31 N79-20283
US-PATENT-APPL-SN-80369	c09 N72-22198	US-PATENT-APPL-SN-027559	c44 N79-20513
US-PATENT-APPL-SN-81095	c13 N72-25323	US-PATENT-APPL-SN-100637	c37 N75-18574
US-PATENT-APPL-SN-81096	c14 N73-14427	US-PATENT-APPL-SN-100639	c14 N72-32452
US-PATENT-APPL-SN-82279	c14 N72-21431	US-PATENT-APPL-SN-100774	c06 N72-25151
US-PATENT-APPL-SN-82279	c03 N76-32140	US-PATENT-APPL-SN-100774	c06 N73-32030
US-PATENT-APPL-SN-82280	c09 N72-25262	US-PATENT-APPL-SN-100996	c08 N73-13187
US-PATENT-APPL-SN-82647	c28 N72-22772	US-PATENT-APPL-SN-101029	c31 N70-38676
US-PATENT-APPL-SN-82648	c12 N72-25292	US-PATENT-APPL-SN-101214	c14 N73-26430
US-PATENT-APPL-SN-82649	c08 N73-30135	US-PATENT-APPL-SN-101354	c10 N73-16205
US-PATENT-APPL-SN-82658	c30 N70-40309	US-PATENT-APPL-SN-102412	c25 N72-33696
US-PATENT-APPL-SN-83816	c44 N74-14784	US-PATENT-APPL-SN-103077	c25 N72-32688
US-PATENT-APPL-SN-84002	c08 N73-20217	US-PATENT-APPL-SN-103078	c15 N73-12486
US-PATENT-APPL-SN-84212	c27 N74-17283	US-PATENT-APPL-SN-103091	c37 N74-23070
US-PATENT-APPL-SN-84289	c15 N73-14469	US-PATENT-APPL-SN-103229	c14 N72-22439
US-PATENT-APPL-SN-84290	c05 N73-20137	US-PATENT-APPL-SN-103230	c15 N73-14468
US-PATENT-APPL-SN-84961	c02 N70-34178	US-PATENT-APPL-SN-103551	c31 N73-14854
US-PATENT-APPL-SN-84962	c21 N70-36943	US-PATENT-APPL-SN-104047	c15 N72-31483
US-PATENT-APPL-SN-85585	c21 N70-35427	US-PATENT-APPL-SN-104048	c31 N73-14855
US-PATENT-APPL-SN-86018	c23 N71-30292	US-PATENT-APPL-SN-104187	c14 N70-36618
US-PATENT-APPL-SN-86417	c07 N72-25171	US-PATENT-APPL-SN-104188	c09 N70-38419
US-PATENT-APPL-SN-86548	c09 N72-21243	US-PATENT-APPL-SN-104346	c14 N73-28888
US-PATENT-APPL-SN-87222	c05 N72-27103	US-PATENT-APPL-SN-104884	c15 N72-33476
US-PATENT-APPL-SN-87550	c06 N72-25146	US-PATENT-APPL-SN-104885	c14 N73-24472
US-PATENT-APPL-SN-87551	c33 N73-16918	US-PATENT-APPL-SN-104885	c35 N76-15434
US-PATENT-APPL-SN-87597	c33 N74-22864	US-PATENT-APPL-SN-105518	c23 N71-15978
US-PATENT-APPL-SN-88435	c35 N74-15090	US-PATENT-APPL-SN-106106	c91 N74-13130
US-PATENT-APPL-SN-89209	c09 N72-25248	US-PATENT-APPL-SN-106135	c28 N70-34294
US-PATENT-APPL-SN-89210	c07 N73-26119	US-PATENT-APPL-SN-106424	c17 N73-24569
US-PATENT-APPL-SN-89211	c14 N73-12446	US-PATENT-APPL-SN-106465	c30 N73-12884
US-PATENT-APPL-SN-89212	c08 N72-25208	US-PATENT-APPL-SN-107298	c32 N73-13921
US-PATENT-APPL-SN-90595	c03 N72-20031	US-PATENT-APPL-SN-107376	c15 N73-25513
US-PATENT-APPL-SN-91180	c14 N70-40240	US-PATENT-APPL-SN-107379	c10 N72-33230
US-PATENT-APPL-SN-91642	c14 N72-31446	US-PATENT-APPL-SN-107380	c28 N73-13773
US-PATENT-APPL-SN-93329	c09 N73-26195	US-PATENT-APPL-SN-107659	c23 N73-20741
US-PATENT-APPL-SN-94049	c14 N73-20476	US-PATENT-APPL-SN-107866	c17 N70-36616
US-PATENT-APPL-SN-94259	c27 N70-35534	US-PATENT-APPL-SN-107870	c15 N70-36411
US-PATENT-APPL-SN-94347	c05 N72-25122	US-PATENT-APPL-SN-108810	c33 N77-22386
US-PATENT-APPL-SN-94369	c07 N71-28965	US-PATENT-APPL-SN-108824	c31 N73-13988

NUMBER INDEX

US-PATENT-APPL-SN-109789	.....	c09	N70-34596	US-PATENT-APPL-SN-140509	.....	c09	N70-35382
US-PATENT-APPL-SN-110402	.....	c09	N72-27226	US-PATENT-APPL-SN-140946	.....	c18	N73-26572
US-PATENT-APPL-SN-110591	.....	c15	N70-39896	US-PATENT-APPL-SN-140946	.....	c27	N74-27037
US-PATENT-APPL-SN-111123	.....	c18	N71-31140	US-PATENT-APPL-SN-141220	.....	c33	N70-37979
US-PATENT-APPL-SN-111998	.....	c21	N73-30640	US-PATENT-APPL-SN-142662	.....	c23	N73-13661
US-PATENT-APPL-SN-112366	.....	c06	N72-10138	US-PATENT-APPL-SN-142719	.....	c14	N73-14429
US-PATENT-APPL-SN-112988	.....	c07	N72-32169	US-PATENT-APPL-SN-143078	.....	c08	N72-33172
US-PATENT-APPL-SN-112998	.....	c14	N73-12945	US-PATENT-APPL-SN-143508	.....	c33	N74-12913
US-PATENT-APPL-SN-112999	.....	c23	N72-25619	US-PATENT-APPL-SN-143509	.....	c16	N72-11415
US-PATENT-APPL-SN-112999	.....	c32	N79-19186	US-PATENT-APPL-SN-144139	.....	c11	N73-26238
US-PATENT-APPL-SN-114772	.....	c04	N76-26175	US-PATENT-APPL-SN-144803	.....	c11	N70-34844
US-PATENT-APPL-SN-114846	.....	c14	N73-12444	US-PATENT-APPL-SN-144804	.....	c14	N70-39898
US-PATENT-APPL-SN-114847	.....	c15	N72-28496	US-PATENT-APPL-SN-144958	.....	c09	N72-20206
US-PATENT-APPL-SN-114848	.....	c11	N72-23215	US-PATENT-APPL-SN-145007	.....	c18	N70-36400
US-PATENT-APPL-SN-114849	.....	c09	N72-27227	US-PATENT-APPL-SN-145026	.....	c06	N72-25152
US-PATENT-APPL-SN-114873	.....	c09	N73-28083	US-PATENT-APPL-SN-145027	.....	c06	N73-32029
US-PATENT-APPL-SN-115082	.....	c18	N73-13562	US-PATENT-APPL-SN-146217	.....	c14	N71-34389
US-PATENT-APPL-SN-115083	.....	c07	N73-25160	US-PATENT-APPL-SN-146935	.....	c14	N73-20475
US-PATENT-APPL-SN-115134	.....	c06	N73-13128	US-PATENT-APPL-SN-146939	.....	c73	N75-30876
US-PATENT-APPL-SN-115944	.....	c03	N71-34044	US-PATENT-APPL-SN-146940	.....	c05	N73-32014
US-PATENT-APPL-SN-116777	.....	c09	N73-19235	US-PATENT-APPL-SN-147099	.....	c14	N73-13417
US-PATENT-APPL-SN-116778	.....	c09	N72-33205	US-PATENT-APPL-SN-147103	.....	c10	N73-20253
US-PATENT-APPL-SN-116786	.....	c07	N72-25172	US-PATENT-APPL-SN-147922	.....	c28	N73-19793
US-PATENT-APPL-SN-116790	.....	c14	N73-30388	US-PATENT-APPL-SN-147940	.....	c14	N72-10375
US-PATENT-APPL-SN-117575	.....	c08	N73-12177	US-PATENT-APPL-SN-147996	.....	c28	N73-24784
US-PATENT-APPL-SN-118169	.....	c14	N70-35220	US-PATENT-APPL-SN-147997	.....	c15	N72-33477
US-PATENT-APPL-SN-118200	.....	c15	N70-34247	US-PATENT-APPL-SN-148001	.....	c14	N70-34298
US-PATENT-APPL-SN-118202	.....	c28	N70-38710	US-PATENT-APPL-SN-148756	.....	c15	N73-13466
US-PATENT-APPL-SN-118203	.....	c14	N70-38602	US-PATENT-APPL-SN-149283	.....	c35	N74-17153
US-PATENT-APPL-SN-118269	.....	c33	N73-26958	US-PATENT-APPL-SN-149983	.....	c31	N72-21893
US-PATENT-APPL-SN-118270	.....	c09	N72-25260	US-PATENT-APPL-SN-150215	.....	c33	N73-25952
US-PATENT-APPL-SN-119282	.....	c03	N72-23048	US-PATENT-APPL-SN-151112	.....	c15	N70-34814
US-PATENT-APPL-SN-120241	.....	c15	N73-24513	US-PATENT-APPL-SN-151114	.....	c31	N70-34176
US-PATENT-APPL-SN-120795	.....	c07	N70-40202	US-PATENT-APPL-SN-151111	.....	c07	N73-26118
US-PATENT-APPL-SN-120797	.....	c14	N70-36824	US-PATENT-APPL-SN-151112	.....	c09	N73-32112
US-PATENT-APPL-SN-120803	.....	c08	N70-34743	US-PATENT-APPL-SN-151113	.....	c14	N73-12447
US-PATENT-APPL-SN-121328	.....	c23	N72-11568	US-PATENT-APPL-SN-151598	.....	c03	N70-34134
US-PATENT-APPL-SN-123253	.....	c10	N73-12244	US-PATENT-APPL-SN-152328	.....	c02	N74-20646
US-PATENT-APPL-SN-123597	.....	c21	N70-34297	US-PATENT-APPL-SN-152849	.....	c15	N73-30457
US-PATENT-APPL-SN-124909	.....	c14	N73-16483	US-PATENT-APPL-SN-153266	.....	c02	N70-38011
US-PATENT-APPL-SN-125234	.....	c07	N73-16121	US-PATENT-APPL-SN-153542	.....	c28	N73-32606
US-PATENT-APPL-SN-125235	.....	c51	N77-25769	US-PATENT-APPL-SN-153543	.....	c08	N73-26176
US-PATENT-APPL-SN-125236	.....	c14	N73-26431	US-PATENT-APPL-SN-153624	.....	c37	N75-27376
US-PATENT-APPL-SN-125979	.....	c09	N72-25255	US-PATENT-APPL-SN-154094	.....	c33	N72-27959
US-PATENT-APPL-SN-127234	.....	c08	N70-35423	US-PATENT-APPL-SN-154930	.....	c44	N76-14600
US-PATENT-APPL-SN-127480	.....	c37	N75-26371	US-PATENT-APPL-SN-154933	.....	c14	N73-25463
US-PATENT-APPL-SN-127481	.....	c24	N75-28135	US-PATENT-APPL-SN-154935	.....	c11	N72-27262
US-PATENT-APPL-SN-127618	.....	c02	N73-13008	US-PATENT-APPL-SN-155565	.....	c08	N73-25206
US-PATENT-APPL-SN-127647	.....	c15	N73-27405	US-PATENT-APPL-SN-155584	.....	c09	N70-40123
US-PATENT-APPL-SN-127915	.....	c02	N73-26004	US-PATENT-APPL-SN-155595	.....	c26	N73-28710
US-PATENT-APPL-SN-127984	.....	c33	N75-27250	US-PATENT-APPL-SN-155596	.....	c15	N73-32361
US-PATENT-APPL-SN-128419	.....	c14	N73-20477	US-PATENT-APPL-SN-155598	.....	c15	N73-28516
US-PATENT-APPL-SN-129071	.....	c09	N72-25254	US-PATENT-APPL-SN-156724	.....	c21	N73-13643
US-PATENT-APPL-SN-129072	.....	c15	N73-13467	US-PATENT-APPL-SN-156725	.....	c14	N73-27377
US-PATENT-APPL-SN-129073	.....	c15	N73-13464	US-PATENT-APPL-SN-156778	.....	c17	N72-28535
US-PATENT-APPL-SN-129074	.....	c15	N71-34425	US-PATENT-APPL-SN-158914	.....	c11	N70-36913
US-PATENT-APPL-SN-129579	.....	c28	N70-35381	US-PATENT-APPL-SN-158916	.....	c05	N70-41819
US-PATENT-APPL-SN-130353	.....	c31	N73-14853	US-PATENT-APPL-SN-159804	.....	c11	N70-38196
US-PATENT-APPL-SN-134478	.....	c22	N70-34572	US-PATENT-APPL-SN-159857	.....	c05	N73-26072
US-PATENT-APPL-SN-134479	.....	c14	N70-33179	US-PATENT-APPL-SN-159857	.....	c52	N76-30793
US-PATENT-APPL-SN-134481	.....	c11	N70-34815	US-PATENT-APPL-SN-159966	.....	c31	N73-26876
US-PATENT-APPL-SN-134567	.....	c14	N73-16484	US-PATENT-APPL-SN-160093	.....	c04	N78-17031
US-PATENT-APPL-SN-134568	.....	c06	N72-31141	US-PATENT-APPL-SN-160859	.....	c32	N73-26910
US-PATENT-APPL-SN-134571	.....	c21	N73-13644	US-PATENT-APPL-SN-160860	.....	c18	N73-32437
US-PATENT-APPL-SN-134573	.....	c09	N72-25257	US-PATENT-APPL-SN-161028	.....	c14	N73-19820
US-PATENT-APPL-SN-134658	.....	c15	N73-28515	US-PATENT-APPL-SN-162100	.....	c33	N74-14939
US-PATENT-APPL-SN-134782	.....	c09	N70-36494	US-PATENT-APPL-SN-162101	.....	c14	N73-24473
US-PATENT-APPL-SN-136006	.....	c09	N72-28225	US-PATENT-APPL-SN-162230	.....	c26	N72-28761
US-PATENT-APPL-SN-136007	.....	c09	N71-34212	US-PATENT-APPL-SN-162380	.....	c36	N74-21091
US-PATENT-APPL-SN-136008	.....	c27	N74-13270	US-PATENT-APPL-SN-163151	.....	c74	N75-25706
US-PATENT-APPL-SN-136085	.....	c17	N73-12547	US-PATENT-APPL-SN-163152	.....	c17	N73-27446
US-PATENT-APPL-SN-136086	.....	c15	N73-19457	US-PATENT-APPL-SN-164428	.....	c09	N70-35440
US-PATENT-APPL-SN-136253	.....	c28	N72-20767	US-PATENT-APPL-SN-166487	.....	c11	N73-32152
US-PATENT-APPL-SN-136253	.....	c27	N74-12814	US-PATENT-APPL-SN-166541	.....	c14	N73-13415
US-PATENT-APPL-SN-137391	.....	c36	N75-31426	US-PATENT-APPL-SN-166969	.....	c15	N70-34249
US-PATENT-APPL-SN-137912	.....	c06	N72-21105	US-PATENT-APPL-SN-166970	.....	c15	N70-36409
US-PATENT-APPL-SN-138227	.....	c26	N72-27784	US-PATENT-APPL-SN-167719	.....	c16	N73-33397
US-PATENT-APPL-SN-138229	.....	c15	N72-32487	US-PATENT-APPL-SN-168560	.....	c02	N70-34856
US-PATENT-APPL-SN-138230	.....	c32	N73-20740	US-PATENT-APPL-SN-168650	.....	c14	N73-13416
US-PATENT-APPL-SN-138540	.....	c14	N70-36808	US-PATENT-APPL-SN-169671	.....	c10	N73-32025
US-PATENT-APPL-SN-139006	.....	c09	N70-38604	US-PATENT-APPL-SN-169962	.....	c34	N74-30608
US-PATENT-APPL-SN-139007	.....	c28	N70-37245	US-PATENT-APPL-SN-169977	.....	c14	N70-34794
US-PATENT-APPL-SN-139012	.....	c03	N70-38713	US-PATENT-APPL-SN-170440	.....	c15	N73-13462
US-PATENT-APPL-SN-139094	.....	c05	N73-32011	US-PATENT-APPL-SN-170544	.....	c36	N77-19416
US-PATENT-APPL-SN-139250	.....	c04	N73-27052	US-PATENT-APPL-SN-170680	.....	c34	N74-15652
US-PATENT-APPL-SN-139528	.....	c03	N72-25020	US-PATENT-APPL-SN-170681	.....	c10	N73-25240
US-PATENT-APPL-SN-139596	.....	c33	N77-13315	US-PATENT-APPL-SN-172459	.....	c06	N73-16106
US-PATENT-APPL-SN-140439	.....	c33	N75-19518	US-PATENT-APPL-SN-172807	.....	c07	N73-28012
US-PATENT-APPL-SN-140443	.....	c09	N70-35219	US-PATENT-APPL-SN-173081	.....	c28	N70-36806

NUMBER INDEX

US-PATENT-APPL-SN-173178	.....	C33	N77-21315	US-PATENT-APPL-SN-197548	.....	C09	N70-34502
US-PATENT-APPL-SN-173185	.....	C23	N73-13660	US-PATENT-APPL-SN-197551	.....	C31	N70-34296
US-PATENT-APPL-SN-173190	.....	C05	N73-32015	US-PATENT-APPL-SN-197553	.....	C08	N70-34778
US-PATENT-APPL-SN-173981	.....	C14	N70-35666	US-PATENT-APPL-SN-197554	.....	C14	N70-35368
US-PATENT-APPL-SN-174684	.....	C33	N75-31331	US-PATENT-APPL-SN-197689	.....	C31	N74-14133
US-PATENT-APPL-SN-175267	.....	C14	N73-28486	US-PATENT-APPL-SN-197689	.....	C31	N75-13111
US-PATENT-APPL-SN-175497	.....	C08	N73-28045	US-PATENT-APPL-SN-197870	.....	C14	N73-32322
US-PATENT-APPL-SN-175852	.....	C25	N73-25760	US-PATENT-APPL-SN-198285	.....	C09	N73-13208
US-PATENT-APPL-SN-175881	.....	C09	N73-15235	US-PATENT-APPL-SN-198289	.....	C14	N73-32326
US-PATENT-APPL-SN-175981	.....	C16	N73-30476	US-PATENT-APPL-SN-198355	.....	C05	N72-15098
US-PATENT-APPL-SN-175983	.....	C31	N73-32750	US-PATENT-APPL-SN-198362	.....	C14	N73-28489
US-PATENT-APPL-SN-177684	.....	C28	N70-34860	US-PATENT-APPL-SN-198379	.....	C15	N73-32359
US-PATENT-APPL-SN-177753	.....	C07	N72-20154	US-PATENT-APPL-SN-198472	.....	C27	N74-12812
US-PATENT-APPL-SN-177985	.....	C35	N74-15831	US-PATENT-APPL-SN-198763	.....	C31	N74-18124
US-PATENT-APPL-SN-178213	.....	C25	N70-33267	US-PATENT-APPL-SN-198763	.....	C31	N74-32920
US-PATENT-APPL-SN-178215	.....	C25	N70-34661	US-PATENT-APPL-SN-198885	.....	C05	N73-27062
US-PATENT-APPL-SN-178721	.....	C03	N70-35408	US-PATENT-APPL-SN-199199	.....	C25	N71-29184
US-PATENT-APPL-SN-178771	.....	C23	N75-14834	US-PATENT-APPL-SN-199202	.....	C14	N70-40239
US-PATENT-APPL-SN-180370	.....	C28	N70-33375	US-PATENT-APPL-SN-199957	.....	C10	N73-26229
US-PATENT-APPL-SN-180374	.....	C28	N70-38181	US-PATENT-APPL-SN-200040	.....	C52	N74-10975
US-PATENT-APPL-SN-180377	.....	C15	N70-36908	US-PATENT-APPL-SN-200085	.....	C26	N73-26751
US-PATENT-APPL-SN-180379	.....	C21	N70-35395	US-PATENT-APPL-SN-200682	.....	C07	N73-14130
US-PATENT-APPL-SN-180380	.....	C09	N70-38998	US-PATENT-APPL-SN-200717	.....	C09	N73-19234
US-PATENT-APPL-SN-180381	.....	C21	N70-35089	US-PATENT-APPL-SN-200762	.....	C03	N73-20040
US-PATENT-APPL-SN-180382	.....	C28	N70-38645	US-PATENT-APPL-SN-200770	.....	C09	N79-21084
US-PATENT-APPL-SN-180384	.....	C11	N70-38675	US-PATENT-APPL-SN-201700	.....	C33	N74-17930
US-PATENT-APPL-SN-180391	.....	C28	N70-38249	US-PATENT-APPL-SN-201782	.....	C15	N73-19458
US-PATENT-APPL-SN-180392	.....	C09	N71-13530	US-PATENT-APPL-SN-201904	.....	C15	N73-30458
US-PATENT-APPL-SN-180394	.....	C15	N70-38603	US-PATENT-APPL-SN-201904	.....	C37	N74-15128
US-PATENT-APPL-SN-180395	.....	C15	N70-36947	US-PATENT-APPL-SN-201904	.....	C37	N74-21064
US-PATENT-APPL-SN-180396	.....	C11	N70-38202	US-PATENT-APPL-SN-202024	.....	C14	N70-34156
US-PATENT-APPL-SN-180473	.....	C28	N73-27699	US-PATENT-APPL-SN-202029	.....	C11	N70-34786
US-PATENT-APPL-SN-180683	.....	C10	N73-25241	US-PATENT-APPL-SN-202030	.....	C31	N71-10747
US-PATENT-APPL-SN-180962	.....	C14	N72-21433	US-PATENT-APPL-SN-202750	.....	C19	N74-21015
US-PATENT-APPL-SN-180963	.....	C14	N73-27378	US-PATENT-APPL-SN-202769	.....	C05	N73-27941
US-PATENT-APPL-SN-181023	.....	C15	N73-26472	US-PATENT-APPL-SN-203271	.....	C51	N74-15778
US-PATENT-APPL-SN-181024	.....	C07	N73-26117	US-PATENT-APPL-SN-203405	.....	C02	N73-26606
US-PATENT-APPL-SN-181828	.....	C02	N70-34858	US-PATENT-APPL-SN-203409	.....	C28	N70-38197
US-PATENT-APPL-SN-181829	.....	C31	N70-38010	US-PATENT-APPL-SN-203411	.....	C33	N70-34812
US-PATENT-APPL-SN-182033	.....	C33	N73-27796	US-PATENT-APPL-SN-204015	.....	C09	N70-38201
US-PATENT-APPL-SN-182399	.....	C07	N73-28013	US-PATENT-APPL-SN-205047	.....	C15	N73-32360
US-PATENT-APPL-SN-182692	.....	C15	N70-36535	US-PATENT-APPL-SN-205470	.....	C08	N71-18752
US-PATENT-APPL-SN-182696	.....	C21	N70-36938	US-PATENT-APPL-SN-205675	.....	C14	N73-30386
US-PATENT-APPL-SN-182698	.....	C15	N70-38620	US-PATENT-APPL-SN-206266	.....	C76	N74-20329
US-PATENT-APPL-SN-182699	.....	C28	N70-38504	US-PATENT-APPL-SN-206266	.....	C76	N75-25730
US-PATENT-APPL-SN-182977	.....	C39	N74-13131	US-PATENT-APPL-SN-206279	.....	C02	N73-26605
US-PATENT-APPL-SN-182978	.....	C16	N73-13489	US-PATENT-APPL-SN-206279	.....	C05	N76-29217
US-PATENT-APPL-SN-183240	.....	C06	N73-30098	US-PATENT-APPL-SN-206698	.....	C15	N73-30459
US-PATENT-APPL-SN-183977	.....	C28	N70-38505	US-PATENT-APPL-SN-207211	.....	C07	N73-30113
US-PATENT-APPL-SN-183978	.....	C15	N70-38020	US-PATENT-APPL-SN-209478	.....	C07	N70-38200
US-PATENT-APPL-SN-184090	.....	C14	N73-32327	US-PATENT-APPL-SN-209479	.....	C15	N70-38850
US-PATENT-APPL-SN-184649	.....	C07	N70-36911	US-PATENT-APPL-SN-209535	.....	C28	N73-24783
US-PATENT-APPL-SN-184960	.....	C06	N73-27980	US-PATENT-APPL-SN-209618	.....	C33	N75-19520
US-PATENT-APPL-SN-186700	.....	C32	N74-12912	US-PATENT-APPL-SN-209618	.....	C33	N75-25041
US-PATENT-APPL-SN-187143	.....	C36	N74-13205	US-PATENT-APPL-SN-209801	.....	C08	N70-40125
US-PATENT-APPL-SN-187262	.....	C15	N73-27406	US-PATENT-APPL-SN-209802	.....	C09	N73-14215
US-PATENT-APPL-SN-187365	.....	C35	N74-15127	US-PATENT-APPL-SN-211332	.....	C02	N74-10034
US-PATENT-APPL-SN-187446	.....	C31	N70-37924	US-PATENT-APPL-SN-211411	.....	C11	N73-20267
US-PATENT-APPL-SN-188594	.....	C15	N70-34967	US-PATENT-APPL-SN-211464	.....	C28	N70-36910
US-PATENT-APPL-SN-188836	.....	C14	N72-21432	US-PATENT-APPL-SN-212010	.....	C14	N72-20394
US-PATENT-APPL-SN-188836	.....	C35	N74-34857	US-PATENT-APPL-SN-212028	.....	C09	N73-14214
US-PATENT-APPL-SN-188927	.....	C08	N73-32081	US-PATENT-APPL-SN-212165	.....	C14	N73-25460
US-PATENT-APPL-SN-188928	.....	C37	N74-13178	US-PATENT-APPL-SN-212173	.....	C02	N71-13421
US-PATENT-APPL-SN-189290	.....	C14	N73-27379	US-PATENT-APPL-SN-212174	.....	C15	N70-34859
US-PATENT-APPL-SN-189375	.....	C18	N73-14584	US-PATENT-APPL-SN-212496	.....	C03	N70-36803
US-PATENT-APPL-SN-189438	.....	C35	N76-15431	US-PATENT-APPL-SN-212497	.....	C11	N71-28779
US-PATENT-APPL-SN-189648	.....	C32	N70-36536	US-PATENT-APPL-SN-212900	.....	C14	N73-25462
US-PATENT-APPL-SN-190316	.....	C17	N73-32414	US-PATENT-APPL-SN-212921	.....	C07	N73-20176
US-PATENT-APPL-SN-191301	.....	C25	N74-12813	US-PATENT-APPL-SN-212977	.....	C15	N73-30460
US-PATENT-APPL-SN-192016	.....	C03	N70-36778	US-PATENT-APPL-SN-213004	.....	C14	N73-19421
US-PATENT-APPL-SN-192101	.....	C10	N73-20254	US-PATENT-APPL-SN-213836	.....	C15	N70-38601
US-PATENT-APPL-SN-192141	.....	C07	N73-24176	US-PATENT-APPL-SN-213949	.....	C07	N73-20175
US-PATENT-APPL-SN-192803	.....	C07	N73-22076	US-PATENT-APPL-SN-214006	.....	C37	N74-18126
US-PATENT-APPL-SN-192803	.....	C35	N76-16391	US-PATENT-APPL-SN-214084	.....	C37	N74-18123
US-PATENT-APPL-SN-192970	.....	C23	N73-30665	US-PATENT-APPL-SN-214086	.....	C14	N73-30395
US-PATENT-APPL-SN-193456	.....	C10	N73-25243	US-PATENT-APPL-SN-214089	.....	C35	N74-21018
US-PATENT-APPL-SN-193671	.....	C15	N73-12488	US-PATENT-APPL-SN-216710	.....	C12	N70-38997
US-PATENT-APPL-SN-193672	.....	C54	N74-14845	US-PATENT-APPL-SN-216711	.....	C03	N70-34157
US-PATENT-APPL-SN-193814	.....	C14	N73-30393	US-PATENT-APPL-SN-216939	.....	C14	N70-40400
US-PATENT-APPL-SN-193947	.....	C14	N73-13420	US-PATENT-APPL-SN-217213	.....	C37	N74-11301
US-PATENT-APPL-SN-193980	.....	C31	N74-13177	US-PATENT-APPL-SN-218965	.....	C10	N73-32145
US-PATENT-APPL-SN-195061	.....	C05	N73-25125	US-PATENT-APPL-SN-219435	.....	C24	N74-27035
US-PATENT-APPL-SN-195346	.....	C15	N70-36492	US-PATENT-APPL-SN-219436	.....	C15	N72-21489
US-PATENT-APPL-SN-195347	.....	C31	N70-34135	US-PATENT-APPL-SN-219590	.....	C06	N73-32030
US-PATENT-APPL-SN-196399	.....	C07	N73-25161	US-PATENT-APPL-SN-219722	.....	C21	N72-21631
US-PATENT-APPL-SN-196898	.....	C38	N74-15130	US-PATENT-APPL-SN-219722	.....	C03	N75-30132
US-PATENT-APPL-SN-196931	.....	C35	N74-17885	US-PATENT-APPL-SN-219806	.....	C07	N74-28226
US-PATENT-APPL-SN-196970	.....	C15	N73-33383	US-PATENT-APPL-SN-220251	.....	C37	N74-15125
US-PATENT-APPL-SN-197183	.....	C02	N76-22154	US-PATENT-APPL-SN-220274	.....	C31	N72-20840

NUMBER INDEX

US-PATENT-APPL-SN-220274	c18	N74-22136	US-PATENT-APPL-SN-242662	c74	N74-15095
US-PATENT-APPL-SN-220785	c85	N74-34672	US-PATENT-APPL-SN-243374	c15	N77-10112
US-PATENT-APPL-SN-221093	c17	N73-32415	US-PATENT-APPL-SN-244158	c32	N74-20863
US-PATENT-APPL-SN-221276	c14	N70-41955	US-PATENT-APPL-SN-244440	c21	N73-19630
US-PATENT-APPL-SN-221634	c05	N70-34857	US-PATENT-APPL-SN-244440	c14	N73-32320
US-PATENT-APPL-SN-221637	c26	N70-36805	US-PATENT-APPL-SN-244519	c37	N74-18125
US-PATENT-APPL-SN-221670	c35	N77-14408	US-PATENT-APPL-SN-244523	c31	N73-30829
US-PATENT-APPL-SN-221685	c35	N74-21062	US-PATENT-APPL-SN-244566	c74	N74-20008
US-PATENT-APPL-SN-221714	c09	N73-32110	US-PATENT-APPL-SN-245063	c33	N74-11049
US-PATENT-APPL-SN-221833	c09	N73-27150	US-PATENT-APPL-SN-245279	c25	N74-30502
US-PATENT-APPL-SN-221945	c31	N70-36410	US-PATENT-APPL-SN-245941	c33	N71-17897
US-PATENT-APPL-SN-223003	c33	N70-36846	US-PATENT-APPL-SN-246056	c38	N74-15395
US-PATENT-APPL-SN-223560	c10	N73-32144	US-PATENT-APPL-SN-247055	c37	N74-11300
US-PATENT-APPL-SN-224489	c31	N74-18089	US-PATENT-APPL-SN-247090	c37	N74-18128
US-PATENT-APPL-SN-226476	c10	N73-32143	US-PATENT-APPL-SN-247136	c14	N71-30265
US-PATENT-APPL-SN-226477	c74	N74-27866	US-PATENT-APPL-SN-247419	c14	N70-36907
US-PATENT-APPL-SN-226551	c06	N73-26100	US-PATENT-APPL-SN-247423	c01	N71-13810
US-PATENT-APPL-SN-227682	c14	N70-34161	US-PATENT-APPL-SN-247434	c25	N76-27383
US-PATENT-APPL-SN-227683	c02	N70-36804	US-PATENT-APPL-SN-247434	c25	N76-29379
US-PATENT-APPL-SN-227692	c14	N70-40003	US-PATENT-APPL-SN-247481	c05	N73-26071
US-PATENT-APPL-SN-227977	c25	N76-18245	US-PATENT-APPL-SN-248469	c14	N73-32318
US-PATENT-APPL-SN-228150	c05	N73-32013	US-PATENT-APPL-SN-248471	c31	N74-27902
US-PATENT-APPL-SN-228163	c44	N74-19693	US-PATENT-APPL-SN-248761	c15	N74-27360
US-PATENT-APPL-SN-228189	c35	N74-11283	US-PATENT-APPL-SN-248985	c03	N71-29129
US-PATENT-APPL-SN-228190	c23	N73-30666	US-PATENT-APPL-SN-249537	c14	N71-10797
US-PATENT-APPL-SN-228229	c27	N77-31308	US-PATENT-APPL-SN-249535	c28	N71-15658
US-PATENT-APPL-SN-228507	c11	N70-38182	US-PATENT-APPL-SN-249540	c15	N70-34861
US-PATENT-APPL-SN-228569	c14	N71-16014	US-PATENT-APPL-SN-249542	c28	N70-41576
US-PATENT-APPL-SN-228707	c25	N71-15650	US-PATENT-APPL-SN-250451	c08	N70-34787
US-PATENT-APPL-SN-229128	c14	N73-28490	US-PATENT-APPL-SN-250567	c33	N71-24876
US-PATENT-APPL-SN-229143	c09	N72-21248	US-PATENT-APPL-SN-250766	c07	N73-30115
US-PATENT-APPL-SN-229143	c33	N77-26387	US-PATENT-APPL-SN-250974	c31	N71-15664
US-PATENT-APPL-SN-229286	c33	N71-29052	US-PATENT-APPL-SN-251449	c07	N70-40063
US-PATENT-APPL-SN-229287	c35	N78-29421	US-PATENT-APPL-SN-251451	c09	N70-35425
US-PATENT-APPL-SN-229354	c62	N74-14920	US-PATENT-APPL-SN-251609	c05	N73-30078
US-PATENT-APPL-SN-229413	c14	N73-32323	US-PATENT-APPL-SN-251621	c16	N73-32391
US-PATENT-APPL-SN-229916	c46	N74-13011	US-PATENT-APPL-SN-251752	c24	N74-30001
US-PATENT-APPL-SN-231520	c27	N71-29155	US-PATENT-APPL-SN-252259	c33	N70-34545
US-PATENT-APPL-SN-231604	c28	N70-39925	US-PATENT-APPL-SN-253006	c22	N70-34248
US-PATENT-APPL-SN-231662	c14	N73-30392	US-PATENT-APPL-SN-253249	c33	N74-11050
US-PATENT-APPL-SN-232021	c04	N74-13420	US-PATENT-APPL-SN-253405	c10	N73-26228
US-PATENT-APPL-SN-232318	c11	N71-15960	US-PATENT-APPL-SN-253725	c35	N74-13129
US-PATENT-APPL-SN-232914	c15	N70-36412	US-PATENT-APPL-SN-253774	c25	N70-36946
US-PATENT-APPL-SN-233098	c12	N73-25262	US-PATENT-APPL-SN-254173	c35	N75-13213
US-PATENT-APPL-SN-233173	c12	N73-28144	US-PATENT-APPL-SN-254177	c10	N73-26230
US-PATENT-APPL-SN-233519	c20	N74-13502	US-PATENT-APPL-SN-254323	c35	N76-15434
US-PATENT-APPL-SN-233587	c16	N72-22520	US-PATENT-APPL-SN-254847	c15	N71-22874
US-PATENT-APPL-SN-233743	c37	N74-13179	US-PATENT-APPL-SN-255132	c14	N71-15598
US-PATENT-APPL-SN-234568	c28	N70-34788	US-PATENT-APPL-SN-256317	c652	N74-26626
US-PATENT-APPL-SN-235162	c08	N71-12501	US-PATENT-APPL-SN-256484	c606	N70-38946
US-PATENT-APPL-SN-235266	c26	N73-32571	US-PATENT-APPL-SN-256493	c20	N77-17143
US-PATENT-APPL-SN-235268	c36	N74-15145	US-PATENT-APPL-SN-257346	c15	N70-36901
US-PATENT-APPL-SN-235269	c09	N73-30181	US-PATENT-APPL-SN-258152	c35	N74-15090
US-PATENT-APPL-SN-235295	c09	N73-30185	US-PATENT-APPL-SN-258171	c34	N74-27744
US-PATENT-APPL-SN-235338	c71	N74-31148	US-PATENT-APPL-SN-258331	c03	N73-31928
US-PATENT-APPL-SN-235588	c28	N71-28928	US-PATENT-APPL-SN-258931	c14	N70-41083
US-PATENT-APPL-SN-235957	c14	N73-27376	US-PATENT-APPL-SN-258932	c05	N70-36493
US-PATENT-APPL-SN-235962	c36	N74-11313	US-PATENT-APPL-SN-259487	c33	N70-36847
US-PATENT-APPL-SN-236052	c14	N72-25428	US-PATENT-APPL-SN-260087	c21	N71-21688
US-PATENT-APPL-SN-236281	c09	N73-20232	US-PATENT-APPL-SN-260093	c25	N74-26948
US-PATENT-APPL-SN-236285	c08	N73-26175	US-PATENT-APPL-SN-260241	c74	N74-21304
US-PATENT-APPL-SN-236748	c14	N70-40157	US-PATENT-APPL-SN-261183	c09	N74-30597
US-PATENT-APPL-SN-236749	c15	N70-40180	US-PATENT-APPL-SN-261912	c14	N70-38818
US-PATENT-APPL-SN-236985	c44	N74-19692	US-PATENT-APPL-SN-261917	c09	N70-40272
US-PATENT-APPL-SN-237029	c09	N73-32108	US-PATENT-APPL-SN-261918	c28	N70-41447
US-PATENT-APPL-SN-237491	c05	N75-12930	US-PATENT-APPL-SN-262430	c35	N74-18323
US-PATENT-APPL-SN-237694	c35	N74-11284	US-PATENT-APPL-SN-262596	c14	N71-28958
US-PATENT-APPL-SN-238047	c33	N74-12951	US-PATENT-APPL-SN-262596	c62	N76-31946
US-PATENT-APPL-SN-238263	c35	N74-10415	US-PATENT-APPL-SN-263230	c33	N74-20860
US-PATENT-APPL-SN-238264	c37	N74-21061	US-PATENT-APPL-SN-263498	c34	N74-27859
US-PATENT-APPL-SN-238264	c37	N74-32921	US-PATENT-APPL-SN-263815	c09	N74-17955
US-PATENT-APPL-SN-238264	c37	N76-15461	US-PATENT-APPL-SN-264268	c31	N78-17238
US-PATENT-APPL-SN-238421	c28	N71-29153	US-PATENT-APPL-SN-264728	c30	N70-40016
US-PATENT-APPL-SN-238826	c28	N77-10213	US-PATENT-APPL-SN-264729	c33	N70-34540
US-PATENT-APPL-SN-239573	c33	N74-10223	US-PATENT-APPL-SN-264731	c09	N70-41655
US-PATENT-APPL-SN-239574	c09	N73-32107	US-PATENT-APPL-SN-264735	c28	N70-33265
US-PATENT-APPL-SN-239575	c09	N74-19528	US-PATENT-APPL-SN-264736	c28	N70-36802
US-PATENT-APPL-SN-239576	c33	N74-14935	US-PATENT-APPL-SN-266107	c11	N71-15925
US-PATENT-APPL-SN-239577	c35	N74-13132	US-PATENT-APPL-SN-266771	c37	N74-18127
US-PATENT-APPL-SN-239803	c70	N74-13436	US-PATENT-APPL-SN-266820	c07	N74-31270
US-PATENT-APPL-SN-239803	c74	N78-15879	US-PATENT-APPL-SN-266822	c32	N74-10132
US-PATENT-APPL-SN-240760	c15	N71-16075	US-PATENT-APPL-SN-266832	c33	N74-10195
US-PATENT-APPL-SN-241061	c06	N72-27151	US-PATENT-APPL-SN-266866	c33	N73-32818
US-PATENT-APPL-SN-241061	c06	N73-33076	US-PATENT-APPL-SN-266899	c60	N74-12888
US-PATENT-APPL-SN-241085	c14	N70-40238	US-PATENT-APPL-SN-266911	c36	N74-20009
US-PATENT-APPL-SN-241614	c10	N73-27171	US-PATENT-APPL-SN-266912	c32	N74-19788
US-PATENT-APPL-SN-241615	c09	N73-32111	US-PATENT-APPL-SN-266913	c31	N74-23065
US-PATENT-APPL-SN-242027	c52	N74-12778	US-PATENT-APPL-SN-266925	c54	N74-17853
US-PATENT-APPL-SN-242028	c21	N73-30641	US-PATENT-APPL-SN-266927	c24	N72-28714

NUMBER INDEX

US-PATENT-APPL-SN-266927	c25	N78-27226	US-PATENT-APPL-SN-292685	c32	N74-20864
US-PATENT-APPL-SN-266928	c26	N74-10521	US-PATENT-APPL-SN-292686	c20	N74-31269
US-PATENT-APPL-SN-266930	c54	N74-12779	US-PATENT-APPL-SN-292698	c09	N73-32109
US-PATENT-APPL-SN-266940	c32	N74-32598	US-PATENT-APPL-SN-293725	c89	N74-30886
US-PATENT-APPL-SN-266943	c72	N74-19310	US-PATENT-APPL-SN-293726	c37	N74-21055
US-PATENT-APPL-SN-267572	c73	N74-26767	US-PATENT-APPL-SN-293727	c33	N74-19956
US-PATENT-APPL-SN-267768	c70	N74-21300	US-PATENT-APPL-SN-293739	c35	N74-28097
US-PATENT-APPL-SN-267862	c33	N74-21851	US-PATENT-APPL-SN-294727	c73	N77-18891
US-PATENT-APPL-SN-269073	c52	N74-26625	US-PATENT-APPL-SN-294738	c73	N78-28913
US-PATENT-APPL-SN-269212	c07	N71-10775	US-PATENT-APPL-SN-295855	c23	N71-17802
US-PATENT-APPL-SN-269215	c14	N70-41332	US-PATENT-APPL-SN-296622	c44	N76-31666
US-PATENT-APPL-SN-269222	c15	N70-38225	US-PATENT-APPL-SN-296879	c26	N71-18064
US-PATENT-APPL-SN-269450	c36	N76-18427	US-PATENT-APPL-SN-297127	c33	N74-27705
US-PATENT-APPL-SN-270118	c33	N71-17610	US-PATENT-APPL-SN-297128	c32	N74-26654
US-PATENT-APPL-SN-271821	c15	N71-10778	US-PATENT-APPL-SN-297436	c33	N79-11314
US-PATENT-APPL-SN-271822	c15	N71-15967	US-PATENT-APPL-SN-298156	c37	N75-13261
US-PATENT-APPL-SN-271823	c27	N71-28929	US-PATENT-APPL-SN-298156	c26	N75-19408
US-PATENT-APPL-SN-271824	c07	N71-21476	US-PATENT-APPL-SN-298157	c33	N74-21850
US-PATENT-APPL-SN-271951	c35	N74-15092	US-PATENT-APPL-SN-298799	c14	N71-15962
US-PATENT-APPL-SN-273222	c33	N74-27683	US-PATENT-APPL-SN-298800	c14	N70-34705
US-PATENT-APPL-SN-273240	c35	N74-16135	US-PATENT-APPL-SN-299042	c15	N71-15918
US-PATENT-APPL-SN-273519	c35	N75-25122	US-PATENT-APPL-SN-300113	c33	N70-33344
US-PATENT-APPL-SN-273534	c09	N70-38712	US-PATENT-APPL-SN-300712	c15	N70-35407
US-PATENT-APPL-SN-274065	c16	N71-28963	US-PATENT-APPL-SN-300957	c33	N71-29053
US-PATENT-APPL-SN-274348	c60	N76-18800	US-PATENT-APPL-SN-301039	c37	N74-27903
US-PATENT-APPL-SN-274360	c32	N74-20809	US-PATENT-APPL-SN-301417	c71	N74-21014
US-PATENT-APPL-SN-275118	c35	N74-18088	US-PATENT-APPL-SN-301418	c52	N76-29894
US-PATENT-APPL-SN-277402	c22	N70-34501	US-PATENT-APPL-SN-301419	c34	N76-17317
US-PATENT-APPL-SN-277404	c05	N70-39922	US-PATENT-APPL-SN-301683	c07	N71-15907
US-PATENT-APPL-SN-277436	c37	N74-25968	US-PATENT-APPL-SN-302681	c37	N75-12326
US-PATENT-APPL-SN-277833	c03	N70-41580	US-PATENT-APPL-SN-302720	c02	N73-13023
US-PATENT-APPL-SN-277904	c28	N74-27425	US-PATENT-APPL-SN-302749	c14	N70-40201
US-PATENT-APPL-SN-277961	c33	N70-36617	US-PATENT-APPL-SN-302913	c76	N79-16678
US-PATENT-APPL-SN-278790	c15	N70-34664	US-PATENT-APPL-SN-304430	c52	N74-27864
US-PATENT-APPL-SN-279646	c08	N71-21042	US-PATENT-APPL-SN-304698	c32	N70-41579
US-PATENT-APPL-SN-280029	c35	N74-15126	US-PATENT-APPL-SN-304705	c32	N74-20810
US-PATENT-APPL-SN-280030	c15	N73-20535	US-PATENT-APPL-SN-304749	c11	N71-16028
US-PATENT-APPL-SN-280031	c26	N73-26752	US-PATENT-APPL-SN-305012	c35	N74-15094
US-PATENT-APPL-SN-280032	c35	N74-15093	US-PATENT-APPL-SN-305013	c14	N73-13435
US-PATENT-APPL-SN-280305	c34	N74-23039	US-PATENT-APPL-SN-305020	c21	N70-38295
US-PATENT-APPL-SN-280362	c14	N71-28935	US-PATENT-APPL-SN-305638	c34	N74-23064
US-PATENT-APPL-SN-280390	c37	N74-15128	US-PATENT-APPL-SN-305639	c37	N74-27904
US-PATENT-APPL-SN-280580	c12	N71-21089	US-PATENT-APPL-SN-306652	c33	N74-32712
US-PATENT-APPL-SN-280776	c14	N70-40273	US-PATENT-APPL-SN-307269	c24	N71-10560
US-PATENT-APPL-SN-280777	c08	N70-41961	US-PATENT-APPL-SN-307270	c10	N71-16030
US-PATENT-APPL-SN-281069	c14	N70-35394	US-PATENT-APPL-SN-307271	c09	N71-22999
US-PATENT-APPL-SN-281875	c25	N74-18551	US-PATENT-APPL-SN-307714	c03	N76-32140
US-PATENT-APPL-SN-281876	c52	N74-20726	US-PATENT-APPL-SN-307727	c32	N74-20813
US-PATENT-APPL-SN-281877	c35	N74-15146	US-PATENT-APPL-SN-307728	c34	N74-27861
US-PATENT-APPL-SN-281908	c25	N75-12086	US-PATENT-APPL-SN-307729	c31	N74-27900
US-PATENT-APPL-SN-282817	c15	N70-40156	US-PATENT-APPL-SN-308362	c09	N73-12216
US-PATENT-APPL-SN-282818	c14	N71-14996	US-PATENT-APPL-SN-308363	c15	N73-12496
US-PATENT-APPL-SN-283502	c37	N74-21060	US-PATENT-APPL-SN-308918	c27	N71-15634
US-PATENT-APPL-SN-284245	c33	N74-17928	US-PATENT-APPL-SN-309354	c11	N71-15926
US-PATENT-APPL-SN-284265	c14	N70-34799	US-PATENT-APPL-SN-310034	c32	N74-30524
US-PATENT-APPL-SN-284266	c15	N71-16077	US-PATENT-APPL-SN-310193	c33	N74-27682
US-PATENT-APPL-SN-284757	c14	N70-38669	US-PATENT-APPL-SN-310506	c10	N71-16042
US-PATENT-APPL-SN-285705	c37	N74-21056	US-PATENT-APPL-SN-310507	c07	N71-11298
US-PATENT-APPL-SN-286620	c15	N71-30028	US-PATENT-APPL-SN-310611	c32	N73-13929
US-PATENT-APPL-SN-286824	c44	N79-19447	US-PATENT-APPL-SN-310615	c37	N74-27901
US-PATENT-APPL-SN-287149	c35	N74-32878	US-PATENT-APPL-SN-310616	c35	N74-21017
US-PATENT-APPL-SN-287150	c37	N74-21065	US-PATENT-APPL-SN-310624	c33	N74-17929
US-PATENT-APPL-SN-288847	c33	N74-27862	US-PATENT-APPL-SN-311175	c52	N74-22771
US-PATENT-APPL-SN-288856	c33	N74-20859	US-PATENT-APPL-SN-311234	c35	N74-23040
US-PATENT-APPL-SN-288857	c14	N73-33361	US-PATENT-APPL-SN-311387	c23	N71-30027
US-PATENT-APPL-SN-289017	c37	N74-27905	US-PATENT-APPL-SN-312269	c28	N71-14043
US-PATENT-APPL-SN-289018	c08	N74-30421	US-PATENT-APPL-SN-312443	c10	N71-21473
US-PATENT-APPL-SN-289033	c15	N73-32358	US-PATENT-APPL-SN-313132	c28	N70-34175
US-PATENT-APPL-SN-289033	c37	N74-21055	US-PATENT-APPL-SN-313135	c15	N70-35087
US-PATENT-APPL-SN-289048	c37	N74-21057	US-PATENT-APPL-SN-313136	c09	N71-12540
US-PATENT-APPL-SN-289048	c37	N79-13364	US-PATENT-APPL-SN-313381	c35	N74-15091
US-PATENT-APPL-SN-289049	c19	N74-15089	US-PATENT-APPL-SN-314074	c15	N71-16079
US-PATENT-APPL-SN-289050	c20	N74-32919	US-PATENT-APPL-SN-314570	c10	N71-28960
US-PATENT-APPL-SN-290021	c37	N74-23064	US-PATENT-APPL-SN-314572	c14	N71-15992
US-PATENT-APPL-SN-290022	c09	N73-12214	US-PATENT-APPL-SN-314656	c51	N77-25769
US-PATENT-APPL-SN-290030	c33	N74-12887	US-PATENT-APPL-SN-315048	c34	N74-27730
US-PATENT-APPL-SN-290043	c18	N75-27040	US-PATENT-APPL-SN-315069	c33	N74-20862
US-PATENT-APPL-SN-290867	c28	N70-39931	US-PATENT-APPL-SN-315070	c60	N76-23850
US-PATENT-APPL-SN-290868	c31	N70-34966	US-PATENT-APPL-SN-315096	c12	N70-40124
US-PATENT-APPL-SN-290870	c15	N70-38996	US-PATENT-APPL-SN-316477	c18	N71-10772
US-PATENT-APPL-SN-290873	c10	N71-16058	US-PATENT-APPL-SN-316618	c07	N74-15453
US-PATENT-APPL-SN-290915	c32	N74-11000	US-PATENT-APPL-SN-317310	c36	N77-25502
US-PATENT-APPL-SN-291845	c52	N74-27566	US-PATENT-APPL-SN-317389	c18	N70-41583
US-PATENT-APPL-SN-292340	c52	N79-21750	US-PATENT-APPL-SN-317391	c15	N71-15968
US-PATENT-APPL-SN-292382	c27	N74-17283	US-PATENT-APPL-SN-317567	c36	N75-15029
US-PATENT-APPL-SN-292477	c15	N73-12495	US-PATENT-APPL-SN-318151	c75	N74-30156
US-PATENT-APPL-SN-292596	c10	N71-29135	US-PATENT-APPL-SN-318152	c52	N74-20728
US-PATENT-APPL-SN-292681	c33	N74-10194	US-PATENT-APPL-SN-318357	c35	N74-21019
US-PATENT-APPL-SN-292682	c14	N73-32319	US-PATENT-APPL-SN-318358	c27	N74-27037

NUMBER INDEX

US-PATENT-APPL-SN-318443	c03 N70-34667	US-PATENT-APPL-SN-346372	c35 N75-12270
US-PATENT-APPL-SN-318448	c35 N77-14408	US-PATENT-APPL-SN-346483	c37 N74-32921
US-PATENT-APPL-SN-319150	c33 N75-19519	US-PATENT-APPL-SN-346483	c37 N76-15461
US-PATENT-APPL-SN-319410	c37 N74-20063	US-PATENT-APPL-SN-347101	c09 N70-41675
US-PATENT-APPL-SN-319892	c07 N71-10609	US-PATENT-APPL-SN-347626	c15 N70-40208
US-PATENT-APPL-SN-319893	c14 N70-41647	US-PATENT-APPL-SN-347952	c37 N75-13265
US-PATENT-APPL-SN-319894	c03 N71-11053	US-PATENT-APPL-SN-347953	c05 N75-24716
US-PATENT-APPL-SN-319905	c14 N71-10781	US-PATENT-APPL-SN-347960	c03 N70-39930
US-PATENT-APPL-SN-320233	c33 N71-15625	US-PATENT-APPL-SN-348422	c27 N76-15311
US-PATENT-APPL-SN-320595	c26 N70-40015	US-PATENT-APPL-SN-348600	c28 N71-29154
US-PATENT-APPL-SN-321179	c27 N74-21156	US-PATENT-APPL-SN-348787	c33 N75-19521
US-PATENT-APPL-SN-321179	c27 N76-32315	US-PATENT-APPL-SN-349778	c09 N70-40234
US-PATENT-APPL-SN-321180	c05 N76-29217	US-PATENT-APPL-SN-349781	c31 N71-15647
US-PATENT-APPL-SN-321656	c14 N70-41807	US-PATENT-APPL-SN-349782	c09 N71-16086
US-PATENT-APPL-SN-322545	c14 N71-10774	US-PATENT-APPL-SN-350249	c36 N75-15028
US-PATENT-APPL-SN-322565	c37 N75-27376	US-PATENT-APPL-SN-350250	c27 N75-27160
US-PATENT-APPL-SN-322997	c37 N75-15992	US-PATENT-APPL-SN-350300	c31 N74-32920
US-PATENT-APPL-SN-322998	c35 N74-32877	US-PATENT-APPL-SN-351259	c15 N71-10672
US-PATENT-APPL-SN-323182	c03 N70-41864	US-PATENT-APPL-SN-351929	c33 N75-18957
US-PATENT-APPL-SN-324029	c32 N74-27612	US-PATENT-APPL-SN-351950	c33 N75-27249
US-PATENT-APPL-SN-325784	c24 N76-14204	US-PATENT-APPL-SN-352381	c20 N75-18310
US-PATENT-APPL-SN-326198	c35 N75-12272	US-PATENT-APPL-SN-352381	c37 N76-18461
US-PATENT-APPL-SN-326298	c14 N71-22765	US-PATENT-APPL-SN-352382	c60 N75-13539
US-PATENT-APPL-SN-326299	c26 N71-17818	US-PATENT-APPL-SN-352383	c35 N75-16783
US-PATENT-APPL-SN-326326	c35 N74-32879	US-PATENT-APPL-SN-352400	c26 N71-10607
US-PATENT-APPL-SN-326327	c44 N74-27519	US-PATENT-APPL-SN-353162	c33 N75-26243
US-PATENT-APPL-SN-326364	c51 N75-13502	US-PATENT-APPL-SN-353632	c15 N71-13789
US-PATENT-APPL-SN-327163	c03 N71-20895	US-PATENT-APPL-SN-353634	c15 N70-41829
US-PATENT-APPL-SN-327565	c02 N70-36825	US-PATENT-APPL-SN-353637	c02 N70-38160
US-PATENT-APPL-SN-327921	c54 N75-13531	US-PATENT-APPL-SN-353644	c07 N71-23098
US-PATENT-APPL-SN-327969	c35 N75-13213	US-PATENT-APPL-SN-353645	c15 N71-15922
US-PATENT-APPL-SN-328140	c18 N71-21651	US-PATENT-APPL-SN-354060	c74 N76-19935
US-PATENT-APPL-SN-328792	c35 N75-12273	US-PATENT-APPL-SN-354182	c10 N71-20841
US-PATENT-APPL-SN-329237	c33 N74-34638	US-PATENT-APPL-SN-354406	c52 N76-14757
US-PATENT-APPL-SN-329243	c28 N74-33209	US-PATENT-APPL-SN-354407	c33 N74-22865
US-PATENT-APPL-SN-329331	c15 N71-15906	US-PATENT-APPL-SN-354408	c35 N75-19614
US-PATENT-APPL-SN-329595	c05 N70-41329	US-PATENT-APPL-SN-354611	c25 N74-26947
US-PATENT-APPL-SN-329958	c33 N74-22885	US-PATENT-APPL-SN-354612	c35 N75-30504
US-PATENT-APPL-SN-330209	c15 N70-41646	US-PATENT-APPL-SN-355126	c17 N71-15644
US-PATENT-APPL-SN-330210	c14 N71-21090	US-PATENT-APPL-SN-355129	c14 N70-41957
US-PATENT-APPL-SN-331323	c07 N71-16088	US-PATENT-APPL-SN-355130	c15 N70-40354
US-PATENT-APPL-SN-331324	c05 N70-35152	US-PATENT-APPL-SN-356488	c08 N71-19544
US-PATENT-APPL-SN-331759	c28 N73-19819	US-PATENT-APPL-SN-356554	c24 N75-33181
US-PATENT-APPL-SN-331759	c07 N76-18117	US-PATENT-APPL-SN-356555	c37 N75-19685
US-PATENT-APPL-SN-331760	c35 N74-27860	US-PATENT-APPL-SN-356664	c31 N75-12161
US-PATENT-APPL-SN-332313	c21 N71-10678	US-PATENT-APPL-SN-356692	c15 N70-41371
US-PATENT-APPL-SN-332339	c07 N71-11284	US-PATENT-APPL-SN-357126	c35 N74-34857
US-PATENT-APPL-SN-333766	c01 N71-15663	US-PATENT-APPL-SN-357312	c27 N76-16229
US-PATENT-APPL-SN-333770	c21 N71-15583	US-PATENT-APPL-SN-357334	c03 N71-12258
US-PATENT-APPL-SN-333912	c32 N74-19790	US-PATENT-APPL-SN-357336	c03 N71-12259
US-PATENT-APPL-SN-334349	c35 N75-19611	US-PATENT-APPL-SN-357337	c15 N71-10782
US-PATENT-APPL-SN-334672	c14 N70-41330	US-PATENT-APPL-SN-357340	c23 N71-15673
US-PATENT-APPL-SN-334678	c11 N71-10777	US-PATENT-APPL-SN-358127	c05 N71-12335
US-PATENT-APPL-SN-335201	c33 N74-17927	US-PATENT-APPL-SN-359039	c32 N74-30523
US-PATENT-APPL-SN-335441	c14 N71-23268	US-PATENT-APPL-SN-359156	c14 N75-24794
US-PATENT-APPL-SN-336103	c16 N71-15550	US-PATENT-APPL-SN-359157	c35 N74-18090
US-PATENT-APPL-SN-336319	c44 N74-33379	US-PATENT-APPL-SN-359532	c15 N71-28959
US-PATENT-APPL-SN-336320	c15 N71-15966	US-PATENT-APPL-SN-359957	c07 N74-32418
US-PATENT-APPL-SN-336607	c10 N71-15910	US-PATENT-APPL-SN-359958	c37 N74-26976
US-PATENT-APPL-SN-336608	c32 N71-17645	US-PATENT-APPL-SN-360180	c17 N71-16026
US-PATENT-APPL-SN-337487	c33 N74-26977	US-PATENT-APPL-SN-360182	c31 N70-36654
US-PATENT-APPL-SN-337816	c35 N75-15931	US-PATENT-APPL-SN-360878	c03 N71-11051
US-PATENT-APPL-SN-338484	c32 N74-20811	US-PATENT-APPL-SN-361666	c33 N75-30428
US-PATENT-APPL-SN-339040	c31 N70-41373	US-PATENT-APPL-SN-361906	c33 N74-20861
US-PATENT-APPL-SN-339806	c07 N74-27490	US-PATENT-APPL-SN-361907	c35 N74-27865
US-PATENT-APPL-SN-339821	c17 N70-33288	US-PATENT-APPL-SN-362145	c32 N75-26194
US-PATENT-APPL-SN-339825	c28 N71-15660	US-PATENT-APPL-SN-362146	c33 N75-18479
US-PATENT-APPL-SN-340113	c16 N70-41578	US-PATENT-APPL-SN-362261	c14 N73-32325
US-PATENT-APPL-SN-340791	c35 N74-26945	US-PATENT-APPL-SN-362278	c37 N78-17385
US-PATENT-APPL-SN-340862	c33 N77-26387	US-PATENT-APPL-SN-363348	c05 N70-41581
US-PATENT-APPL-SN-340863	c25 N76-27383	US-PATENT-APPL-SN-363653	c07 N70-41331
US-PATENT-APPL-SN-340864	c31 N74-21059	US-PATENT-APPL-SN-363654	c07 N70-41372
US-PATENT-APPL-SN-340865	c31 N73-20880	US-PATENT-APPL-SN-363691	c20 N76-14190
US-PATENT-APPL-SN-340871	c44 N74-19870	US-PATENT-APPL-SN-364867	c09 N71-10673
US-PATENT-APPL-SN-341467	c15 N70-39924	US-PATENT-APPL-SN-365244	c37 N78-17386
US-PATENT-APPL-SN-341621	c54 N74-20725	US-PATENT-APPL-SN-365644	c35 N74-26946
US-PATENT-APPL-SN-341662	c08 N74-10942	US-PATENT-APPL-SN-366226	c10 N71-16018
US-PATENT-APPL-SN-342572	c02 N71-16087	US-PATENT-APPL-SN-367267	c02 N73-26008
US-PATENT-APPL-SN-342574	c03 N71-20904	US-PATENT-APPL-SN-367268	c05 N75-25914
US-PATENT-APPL-SN-343308	c19 N74-29410	US-PATENT-APPL-SN-367293	c36 N75-19655
US-PATENT-APPL-SN-343425	c11 N70-35383	US-PATENT-APPL-SN-367294	c76 N75-12810
US-PATENT-APPL-SN-343426	c07 N71-20814	US-PATENT-APPL-SN-367606	c75 N75-13625
US-PATENT-APPL-SN-343607	c18 N74-27397	US-PATENT-APPL-SN-367606	c75 N76-17951
US-PATENT-APPL-SN-343760	c07 N71-28979	US-PATENT-APPL-SN-368123	c09 N71-10618
US-PATENT-APPL-SN-344410	c07 N74-33218	US-PATENT-APPL-SN-369334	c21 N71-22880
US-PATENT-APPL-SN-344793	c03 N71-11058	US-PATENT-APPL-SN-369336	c09 N71-10659
US-PATENT-APPL-SN-345372	c33 N74-22814	US-PATENT-APPL-SN-369337	c15 N70-41811
US-PATENT-APPL-SN-346356	c14 N70-41676	US-PATENT-APPL-SN-369338	c08 N71-28925
US-PATENT-APPL-SN-346361	c37 N74-21064	US-PATENT-APPL-SN-369640	c32 N70-41370

NUMBER INDEX

US-PATENT-APPL-SN-370134	c30	N70-40353	US-PATENT-APPL-SN-391343	c05	N69-21473
US-PATENT-APPL-SN-370135	c11	N70-41677	US-PATENT-APPL-SN-392823	c25	N74-33378
US-PATENT-APPL-SN-370255	c33	N75-18477	US-PATENT-APPL-SN-392965	c18	N71-22998
US-PATENT-APPL-SN-370271	c32	N75-24981	US-PATENT-APPL-SN-392969	c09	N71-23573
US-PATENT-APPL-SN-370581	c27	N73-27695	US-PATENT-APPL-SN-392970	c32	N70-41367
US-PATENT-APPL-SN-370582	c18	N76-14186	US-PATENT-APPL-SN-392973	c07	N71-23001
US-PATENT-APPL-SN-370872	c37	N74-32918	US-PATENT-APPL-SN-392992	c15	N71-23052
US-PATENT-APPL-SN-370989	c23	N71-29049	US-PATENT-APPL-SN-393451	c02	N70-42016
US-PATENT-APPL-SN-370999	c74	N78-15879	US-PATENT-APPL-SN-393461	c31	N71-17691
US-PATENT-APPL-SN-371322	c44	N76-14600	US-PATENT-APPL-SN-393464	c23	N71-21821
US-PATENT-APPL-SN-371856	c15	N70-42033	US-PATENT-APPL-SN-393523	c12	N75-24774
US-PATENT-APPL-SN-371857	c07	N70-41680	US-PATENT-APPL-SN-393524	c60	N76-21914
US-PATENT-APPL-SN-372143	c15	N73-27407	US-PATENT-APPL-SN-393525	c31	N74-32917
US-PATENT-APPL-SN-372148	c35	N74-26949	US-PATENT-APPL-SN-393526	c77	N75-20139
US-PATENT-APPL-SN-372149	c37	N75-15050	US-PATENT-APPL-SN-393527	c15	N75-13007
US-PATENT-APPL-SN-372438	c30	N71-17788	US-PATENT-APPL-SN-393528	c36	N75-19654
US-PATENT-APPL-SN-372648	c27	N71-16348	US-PATENT-APPL-SN-394149	c35	N75-25123
US-PATENT-APPL-SN-372727	c31	N70-36845	US-PATENT-APPL-SN-394206	c76	N75-25730
US-PATENT-APPL-SN-372730	c28	N71-28850	US-PATENT-APPL-SN-394207	c25	N78-27226
US-PATENT-APPL-SN-373587	c33	N74-32711	US-PATENT-APPL-SN-394638	c28	N70-34162
US-PATENT-APPL-SN-373588	c33	N75-19515	US-PATENT-APPL-SN-394898	c07	N77-28118
US-PATENT-APPL-SN-373591	c31	N71-15692	US-PATENT-APPL-SN-395348	c15	N71-22713
US-PATENT-APPL-SN-374421	c27	N76-24405	US-PATENT-APPL-SN-395493	c37	N79-13364
US-PATENT-APPL-SN-374421	c27	N78-17213	US-PATENT-APPL-SN-395495	c54	N75-27759
US-PATENT-APPL-SN-374421	c27	N78-32262	US-PATENT-APPL-SN-395687	c37	N75-18573
US-PATENT-APPL-SN-374422	c32	N75-24982	US-PATENT-APPL-SN-395868	c33	N75-19516
US-PATENT-APPL-SN-374423	c36	N75-31427	US-PATENT-APPL-SN-395895	c36	N78-17366
US-PATENT-APPL-SN-374424	c44	N75-12732	US-PATENT-APPL-SN-395895	c36	N79-21333
US-PATENT-APPL-SN-374441	c35	N75-19616	US-PATENT-APPL-SN-396443	c15	N71-15986
US-PATENT-APPL-SN-374583	c33	N74-29556	US-PATENT-APPL-SN-396444	c10	N71-20782
US-PATENT-APPL-SN-375401	c17	N71-16025	US-PATENT-APPL-SN-397476	c34	N75-12222
US-PATENT-APPL-SN-375405	c31	N71-15675	US-PATENT-APPL-SN-397477	c33	N75-19517
US-PATENT-APPL-SN-375674	c28	N70-41582	US-PATENT-APPL-SN-397478	c52	N75-33640
US-PATENT-APPL-SN-375680	c10	N71-28739	US-PATENT-APPL-SN-397665	c10	N70-41991
US-PATENT-APPL-SN-375682	c31	N70-41588	US-PATENT-APPL-SN-398131	c05	N70-41297
US-PATENT-APPL-SN-377146	c14	N71-23041	US-PATENT-APPL-SN-398132	c15	N70-41808
US-PATENT-APPL-SN-377777	c32	N70-42003	US-PATENT-APPL-SN-398885	c27	N76-15310
US-PATENT-APPL-SN-377780	c11	N71-10604	US-PATENT-APPL-SN-398886	c07	N75-24736
US-PATENT-APPL-SN-377784	c28	N70-41311	US-PATENT-APPL-SN-398901	c37	N75-25186
US-PATENT-APPL-SN-378080	c12	N71-24692	US-PATENT-APPL-SN-399419	c21	N71-23289
US-PATENT-APPL-SN-378126	c44	N76-18643	US-PATENT-APPL-SN-400467	c33	N75-30431
US-PATENT-APPL-SN-378127	c44	N76-18641	US-PATENT-APPL-SN-400613	c15	N71-21528
US-PATENT-APPL-SN-379019	c09	N75-12969	US-PATENT-APPL-SN-400617	c31	N71-17629
US-PATENT-APPL-SN-379049	c31	N75-13111	US-PATENT-APPL-SN-400857	c31	N79-21225
US-PATENT-APPL-SN-379072	c15	N71-16078	US-PATENT-APPL-SN-401224	c38	N78-17396
US-PATENT-APPL-SN-379290	c14	N73-28499	US-PATENT-APPL-SN-401225	c38	N78-17395
US-PATENT-APPL-SN-379417	c02	N70-41863	US-PATENT-APPL-SN-401466	c09	N75-24758
US-PATENT-APPL-SN-379768	c28	N71-10780	US-PATENT-APPL-SN-401919	c24	N76-24363
US-PATENT-APPL-SN-379771	c33	N71-28852	US-PATENT-APPL-SN-401920	c37	N75-25185
US-PATENT-APPL-SN-380046	c25	N76-29379	US-PATENT-APPL-SN-401921	c24	N76-14203
US-PATENT-APPL-SN-380630	c37	N75-21631	US-PATENT-APPL-SN-402365	c31	N71-17730
US-PATENT-APPL-SN-380960	c15	N70-41993	US-PATENT-APPL-SN-402865	c33	N74-32660
US-PATENT-APPL-SN-380965	c10	N71-23033	US-PATENT-APPL-SN-402867	c35	N75-33367
US-PATENT-APPL-SN-381940	c09	N71-20705	US-PATENT-APPL-SN-402868	c35	N75-19612
US-PATENT-APPL-SN-382261	c35	N76-14430	US-PATENT-APPL-SN-402978	c10	N71-23084
US-PATENT-APPL-SN-382262	c37	N74-21058	US-PATENT-APPL-SN-403154	c37	N77-22480
US-PATENT-APPL-SN-382976	c15	N71-21179	US-PATENT-APPL-SN-403694	c54	N75-12616
US-PATENT-APPL-SN-384010	c10	N71-28859	US-PATENT-APPL-SN-403695	c35	N77-20399
US-PATENT-APPL-SN-384773	c15	N76-14158	US-PATENT-APPL-SN-403959	c14	N70-41994
US-PATENT-APPL-SN-384811	c15	N71-10809	US-PATENT-APPL-SN-403960	c14	N70-41366
US-PATENT-APPL-SN-385013	c35	N75-19613	US-PATENT-APPL-SN-404212	c14	N73-32324
US-PATENT-APPL-SN-385059	c33	N77-21315	US-PATENT-APPL-SN-405341	c37	N76-15460
US-PATENT-APPL-SN-385520	c14	N71-23037	US-PATENT-APPL-SN-405342	c35	N75-19615
US-PATENT-APPL-SN-385522	c34	N75-33342	US-PATENT-APPL-SN-405346	c37	N75-30562
US-PATENT-APPL-SN-385526	c12	N71-16031	US-PATENT-APPL-SN-405629	c09	N71-10677
US-PATENT-APPL-SN-385527	c31	N71-17729	US-PATENT-APPL-SN-405630	c14	N71-10616
US-PATENT-APPL-SN-385530	c09	N71-10798	US-PATENT-APPL-SN-405632	c21	N71-15582
US-PATENT-APPL-SN-386467	c14	N70-40233	US-PATENT-APPL-SN-406097	c14	N71-21088
US-PATENT-APPL-SN-386789	c35	N75-12271	US-PATENT-APPL-SN-406296	c25	N79-10163
US-PATENT-APPL-SN-386790	c09	N75-12968	US-PATENT-APPL-SN-406715	c35	N75-15014
US-PATENT-APPL-SN-386793	c35	N75-25124	US-PATENT-APPL-SN-407323	c32	N75-21485
US-PATENT-APPL-SN-386800	c15	N71-21404	US-PATENT-APPL-SN-407595	c28	N70-41992
US-PATENT-APPL-SN-387094	c37	N77-19457	US-PATENT-APPL-SN-407599	c14	N71-21091
US-PATENT-APPL-SN-387095	c37	N75-33395	US-PATENT-APPL-SN-407603	c05	N71-11199
US-PATENT-APPL-SN-387266	c35	N75-27328	US-PATENT-APPL-SN-408435	c15	N71-28937
US-PATENT-APPL-SN-387332	c15	N70-33226	US-PATENT-APPL-SN-408438	c07	N71-22750
US-PATENT-APPL-SN-387342	c37	N76-18457	US-PATENT-APPL-SN-408442	c10	N71-23662
US-PATENT-APPL-SN-388023	c10	N70-41964	US-PATENT-APPL-SN-409126	c18	N71-21068
US-PATENT-APPL-SN-388024	c32	N71-17609	US-PATENT-APPL-SN-409990	c35	N75-27330
US-PATENT-APPL-SN-388966	c31	N70-41855	US-PATENT-APPL-SN-409991	c33	N75-13139
US-PATENT-APPL-SN-388967	c10	N71-23271	US-PATENT-APPL-SN-410325	c18	N71-23088
US-PATENT-APPL-SN-389916	c18	N75-27041	US-PATENT-APPL-SN-410326	c09	N71-21449
US-PATENT-APPL-SN-389929	c33	N75-25040	US-PATENT-APPL-SN-410330	c26	N71-23043
US-PATENT-APPL-SN-390049	c37	N76-16446	US-PATENT-APPL-SN-410331	c02	N70-41589
US-PATENT-APPL-SN-390049	c44	N76-29700	US-PATENT-APPL-SN-410332	c14	N71-23039
US-PATENT-APPL-SN-390250	c21	N70-41856	US-PATENT-APPL-SN-411572	c35	N75-15932
US-PATENT-APPL-SN-390251	c07	N71-23026	US-PATENT-APPL-SN-411944	c15	N70-41629
US-PATENT-APPL-SN-390466	c24	N75-13032	US-PATENT-APPL-SN-411945	c18	N71-23047
US-PATENT-APPL-SN-390468	c36	N75-19652	US-PATENT-APPL-SN-411949	c27	N71-15635

NUMBER INDEX

US-PATENT-APPL-SN-412079	.....	c37	N75-13266	US-PATENT-APPL-SN-432030	.....	c12	N71-20896
US-PATENT-APPL-SN-412080	.....	c36	N75-19653	US-PATENT-APPL-SN-432032	.....	c15	N69-24322
US-PATENT-APPL-SN-412379	.....	c32	N77-10392	US-PATENT-APPL-SN-432433	.....	c15	N71-22705
US-PATENT-APPL-SN-413661	.....	c15	N71-23024	US-PATENT-APPL-SN-433821	.....	c09	N71-16089
US-PATENT-APPL-SN-413662	.....	c09	N70-41929	US-PATENT-APPL-SN-433968	.....	c33	N75-25041
US-PATENT-APPL-SN-414042	.....	c35	N79-17192	US-PATENT-APPL-SN-434143	.....	c15	N71-15871
US-PATENT-APPL-SN-414043	.....	c27	N76-32315	US-PATENT-APPL-SN-434148	.....	c31	N71-24750
US-PATENT-APPL-SN-414482	.....	c10	N71-10578	US-PATENT-APPL-SN-435387	.....	c10	N70-42032
US-PATENT-APPL-SN-415486	.....	c37	N75-19683	US-PATENT-APPL-SN-435433	.....	c14	N71-30026
US-PATENT-APPL-SN-416135	.....	c32	N75-15854	US-PATENT-APPL-SN-435756	.....	c12	N71-16894
US-PATENT-APPL-SN-416938	.....	c11	N71-10746	US-PATENT-APPL-SN-436313	.....	c54	N77-32721
US-PATENT-APPL-SN-416940	.....	c21	N71-21708	US-PATENT-APPL-SN-436315	.....	c26	N75-19408
US-PATENT-APPL-SN-416941	.....	c31	N70-34159	US-PATENT-APPL-SN-436316	.....	c20	N76-14191
US-PATENT-APPL-SN-416943	.....	c14	N71-23269	US-PATENT-APPL-SN-436317	.....	c37	N76-24575
US-PATENT-APPL-SN-416945	.....	c10	N71-23543	US-PATENT-APPL-SN-437556	.....	c27	N76-16230
US-PATENT-APPL-SN-416946	.....	c28	N71-15563	US-PATENT-APPL-SN-437611	.....	c09	N71-22796
US-PATENT-APPL-SN-417253	.....	c11	N71-23042	US-PATENT-APPL-SN-438135	.....	c09	N71-23027
US-PATENT-APPL-SN-418010	.....	c32	N74-12843	US-PATENT-APPL-SN-438147	.....	c75	N76-14931
US-PATENT-APPL-SN-418362	.....	c14	N71-20741	US-PATENT-APPL-SN-438797	.....	c14	N71-10500
US-PATENT-APPL-SN-418931	.....	c05	N70-42000	US-PATENT-APPL-SN-439489	.....	c09	N70-41717
US-PATENT-APPL-SN-418933	.....	c15	N71-23022	US-PATENT-APPL-SN-439490	.....	c23	N69-24332
US-PATENT-APPL-SN-419319	.....	c34	N76-17317	US-PATENT-APPL-SN-440033	.....	c27	N70-41897
US-PATENT-APPL-SN-419747	.....	c17	N76-21250	US-PATENT-APPL-SN-440036	.....	c09	N71-23097
US-PATENT-APPL-SN-419788	.....	c27	N76-14264	US-PATENT-APPL-SN-440039	.....	c09	N71-22888
US-PATENT-APPL-SN-419831	.....	c35	N75-21582	US-PATENT-APPL-SN-440916	.....	c33	N75-27252
US-PATENT-APPL-SN-419831	.....	c35	N77-17426	US-PATENT-APPL-SN-440917	.....	c37	N76-18459
US-PATENT-APPL-SN-420245	.....	c08	N71-22749	US-PATENT-APPL-SN-441279	.....	c35	N75-29382
US-PATENT-APPL-SN-420250	.....	c15	N71-23051	US-PATENT-APPL-SN-441936	.....	c14	N69-39975
US-PATENT-APPL-SN-420424	.....	c34	N75-26282	US-PATENT-APPL-SN-442558	.....	c15	N71-10799
US-PATENT-APPL-SN-420466	.....	c14	N71-23092	US-PATENT-APPL-SN-442835	.....	c26	N71-29156
US-PATENT-APPL-SN-420813	.....	c36	N75-32441	US-PATENT-APPL-SN-444087	.....	c02	N71-11041
US-PATENT-APPL-SN-421702	.....	c44	N75-32581	US-PATENT-APPL-SN-445178	.....	c37	N76-15461
US-PATENT-APPL-SN-421702	.....	c44	N76-23675	US-PATENT-APPL-SN-445292	.....	c11	N71-23030
US-PATENT-APPL-SN-422092	.....	c14	N71-22989	US-PATENT-APPL-SN-445398	.....	c74	N78-15880
US-PATENT-APPL-SN-422095	.....	c07	N71-10676	US-PATENT-APPL-SN-445807	.....	c14	N71-22996
US-PATENT-APPL-SN-422096	.....	c03	N71-29044	US-PATENT-APPL-SN-446131	.....	c14	N71-22992
US-PATENT-APPL-SN-422097	.....	c11	N71-21481	US-PATENT-APPL-SN-446560	.....	c12	N76-15189
US-PATENT-APPL-SN-422098	.....	c15	N71-22797	US-PATENT-APPL-SN-446562	.....	c36	N76-14447
US-PATENT-APPL-SN-422099	.....	c14	N71-22964	US-PATENT-APPL-SN-446564	.....	c35	N75-26334
US-PATENT-APPL-SN-422100	.....	c14	N71-21040	US-PATENT-APPL-SN-446567	.....	c34	N76-27515
US-PATENT-APPL-SN-422864	.....	c05	N69-21925	US-PATENT-APPL-SN-446568	.....	c37	N76-23570
US-PATENT-APPL-SN-422865	.....	c31	N70-41631	US-PATENT-APPL-SN-446569	.....	c77	N75-20140
US-PATENT-APPL-SN-422867	.....	c15	N70-40062	US-PATENT-APPL-SN-447124	.....	c35	N75-30503
US-PATENT-APPL-SN-422868	.....	c15	N71-10617	US-PATENT-APPL-SN-447927	.....	c11	N71-10776
US-PATENT-APPL-SN-422869	.....	c14	N71-10779	US-PATENT-APPL-SN-447928	.....	c15	N71-10577
US-PATENT-APPL-SN-423412	.....	c08	N71-22897	US-PATENT-APPL-SN-447930	.....	c14	N69-39896
US-PATENT-APPL-SN-424013	.....	c34	N76-27517	US-PATENT-APPL-SN-447933	.....	c03	N69-21337
US-PATENT-APPL-SN-424038	.....	c24	N75-30260	US-PATENT-APPL-SN-448320	.....	c91	N76-30131
US-PATENT-APPL-SN-424153	.....	c15	N71-21234	US-PATENT-APPL-SN-448321	.....	c27	N74-19772
US-PATENT-APPL-SN-424156	.....	c02	N71-23007	US-PATENT-APPL-SN-448321	.....	c27	N78-32261
US-PATENT-APPL-SN-424157	.....	c28	N70-41275	US-PATENT-APPL-SN-448323	.....	c18	N76-17185
US-PATENT-APPL-SN-425096	.....	c05	N71-23080	US-PATENT-APPL-SN-448325	.....	c33	N75-26244
US-PATENT-APPL-SN-425362	.....	c15	N71-10658	US-PATENT-APPL-SN-448365	.....	c10	N71-26814
US-PATENT-APPL-SN-425363	.....	c09	N71-20658	US-PATENT-APPL-SN-448898	.....	c15	N70-41310
US-PATENT-APPL-SN-425364	.....	c33	N71-15623	US-PATENT-APPL-SN-449118	.....	c33	N75-19524
US-PATENT-APPL-SN-425365	.....	c32	N71-21045	US-PATENT-APPL-SN-449153	.....	c54	N75-27761
US-PATENT-APPL-SN-425972	.....	c03	N71-23006	US-PATENT-APPL-SN-449901	.....	c28	N70-41967
US-PATENT-APPL-SN-426155	.....	c33	N75-15874	US-PATENT-APPL-SN-449902	.....	c14	N70-41681
US-PATENT-APPL-SN-426405	.....	c25	N75-26043	US-PATENT-APPL-SN-450500	.....	c37	N76-18455
US-PATENT-APPL-SN-426455	.....	c28	N71-15661	US-PATENT-APPL-SN-450502	.....	c37	N76-18456
US-PATENT-APPL-SN-426702	.....	c15	N70-42034	US-PATENT-APPL-SN-450504	.....	c23	N77-17161
US-PATENT-APPL-SN-427395	.....	c54	N75-27760	US-PATENT-APPL-SN-450505	.....	c37	N75-31446
US-PATENT-APPL-SN-427775	.....	c27	N76-22376	US-PATENT-APPL-SN-451596	.....	c17	N71-29137
US-PATENT-APPL-SN-427990	.....	c06	N71-23527	US-PATENT-APPL-SN-452761	.....	c33	N75-19522
US-PATENT-APPL-SN-428444	.....	c44	N76-18642	US-PATENT-APPL-SN-452767	.....	c05	N75-25915
US-PATENT-APPL-SN-428444	.....	c44	N76-29704	US-PATENT-APPL-SN-452768	.....	c52	N76-30793
US-PATENT-APPL-SN-428882	.....	c31	N70-41948	US-PATENT-APPL-SN-452769	.....	c44	N76-16612
US-PATENT-APPL-SN-428887	.....	c33	N71-29051	US-PATENT-APPL-SN-452770	.....	c33	N75-31332
US-PATENT-APPL-SN-428890	.....	c02	N70-41630	US-PATENT-APPL-SN-452944	.....	c18	N71-24183
US-PATENT-APPL-SN-428992	.....	c34	N77-18382	US-PATENT-APPL-SN-452945	.....	c18	N69-39979
US-PATENT-APPL-SN-428993	.....	c45	N75-27585	US-PATENT-APPL-SN-453115	.....	c32	N76-14321
US-PATENT-APPL-SN-428994	.....	c32	N75-21486	US-PATENT-APPL-SN-453225	.....	c15	N71-24833
US-PATENT-APPL-SN-428994	.....	c32	N76-16249	US-PATENT-APPL-SN-453227	.....	c31	N71-10582
US-PATENT-APPL-SN-428995	.....	c51	N75-25503	US-PATENT-APPL-SN-453229	.....	c17	N71-23828
US-PATENT-APPL-SN-429437	.....	c35	N75-23910	US-PATENT-APPL-SN-453231	.....	c23	N71-15467
US-PATENT-APPL-SN-429932	.....	c05	N71-20268	US-PATENT-APPL-SN-453232	.....	c15	N71-21311
US-PATENT-APPL-SN-430192	.....	c18	N71-27170	US-PATENT-APPL-SN-453232	.....	c18	N75-19329
US-PATENT-APPL-SN-430226	.....	c18	N71-23658	US-PATENT-APPL-SN-453241	.....	c33	N75-29318
US-PATENT-APPL-SN-430496	.....	c26	N75-29236	US-PATENT-APPL-SN-455163	.....	c32	N75-26195
US-PATENT-APPL-SN-430748	.....	c76	N79-21910	US-PATENT-APPL-SN-455165	.....	c36	N75-30524
US-PATENT-APPL-SN-430776	.....	c03	N70-41954	US-PATENT-APPL-SN-455352	.....	c33	N71-20834
US-PATENT-APPL-SN-430777	.....	c18	N71-24184	US-PATENT-APPL-SN-455477	.....	c08	N71-19687
US-PATENT-APPL-SN-430778	.....	c03	N71-10728	US-PATENT-APPL-SN-456578	.....	c07	N70-41678
US-PATENT-APPL-SN-430780	.....	c03	N71-12260	US-PATENT-APPL-SN-456581	.....	c09	N71-23021
US-PATENT-APPL-SN-431235	.....	c15	N71-16052	US-PATENT-APPL-SN-456874	.....	c06	N71-23499
US-PATENT-APPL-SN-432025	.....	c15	N71-21531	US-PATENT-APPL-SN-457295	.....	c20	N75-28837
US-PATENT-APPL-SN-432026	.....	c07	N71-23405	US-PATENT-APPL-SN-457874	.....	c09	N71-23545
US-PATENT-APPL-SN-432027	.....	c21	N70-41930	US-PATENT-APPL-SN-457875	.....	c31	N70-42015
US-PATENT-APPL-SN-432028	.....	c15	N71-22723	US-PATENT-APPL-SN-457876	.....	c02	N71-12243

NUMBER INDEX

US-PATENT-APPL-SN-457879	c15	N71-21078	US-PATENT-APPL-SN-483886	c09	N71-22988
US-PATENT-APPL-SN-458484	c44	N76-14595	US-PATENT-APPL-SN-483891	c14	N69-39982
US-PATENT-APPL-SN-459138	c14	N71-10773	US-PATENT-APPL-SN-484156	c11	N71-21475
US-PATENT-APPL-SN-459407	c14	N73-30391	US-PATENT-APPL-SN-484208	c35	N75-30502
US-PATENT-APPL-SN-459736	c33	N75-26245	US-PATENT-APPL-SN-484209	c35	N76-18403
US-PATENT-APPL-SN-460876	c09	N69-21470	US-PATENT-APPL-SN-484485	c01	N71-23897
US-PATENT-APPL-SN-460877	c33	N71-23085	US-PATENT-APPL-SN-484489	c10	N71-15909
US-PATENT-APPL-SN-461073	c33	N75-26246	US-PATENT-APPL-SN-484490	c24	N71-20518
US-PATENT-APPL-SN-461477	c37	N75-19686	US-PATENT-APPL-SN-484855	c09	N71-19480
US-PATENT-APPL-SN-461765	c17	N71-23046	US-PATENT-APPL-SN-485058	c06	N71-23500
US-PATENT-APPL-SN-462341	c44	N76-31666	US-PATENT-APPL-SN-485656	c28	N71-10574
US-PATENT-APPL-SN-462424	c24	N77-19171	US-PATENT-APPL-SN-485957	c25	N71-21694
US-PATENT-APPL-SN-462705	c37	N75-19684	US-PATENT-APPL-SN-485958	c15	N71-28047
US-PATENT-APPL-SN-462762	c12	N69-21466	US-PATENT-APPL-SN-485960	c15	N70-42017
US-PATENT-APPL-SN-462763	c14	N71-22991	US-PATENT-APPL-SN-486573	c10	N71-19469
US-PATENT-APPL-SN-462844	c33	N75-19520	US-PATENT-APPL-SN-486884	c15	N73-32362
US-PATENT-APPL-SN-462903	c37	N76-14461	US-PATENT-APPL-SN-487156	c44	N77-10636
US-PATENT-APPL-SN-463925	c74	N76-30053	US-PATENT-APPL-SN-487341	c14	N71-19431
US-PATENT-APPL-SN-464720	c32	N76-16249	US-PATENT-APPL-SN-487342	c09	N71-21583
US-PATENT-APPL-SN-464721	c37	N75-26372	US-PATENT-APPL-SN-487343	c03	N69-39890
US-PATENT-APPL-SN-464722	c35	N76-22509	US-PATENT-APPL-SN-487344	c15	N69-21472
US-PATENT-APPL-SN-464723	c33	N75-30429	US-PATENT-APPL-SN-487352	c14	N71-18699
US-PATENT-APPL-SN-464878	c10	N71-22986	US-PATENT-APPL-SN-487852	c23	N76-15268
US-PATENT-APPL-SN-464879	c14	N71-21072	US-PATENT-APPL-SN-487929	c33	N74-20859
US-PATENT-APPL-SN-464880	c33	N71-21586	US-PATENT-APPL-SN-487934	c15	N71-21530
US-PATENT-APPL-SN-464885	c15	N71-22997	US-PATENT-APPL-SN-487939	c14	N71-23040
US-PATENT-APPL-SN-466390	c28	N71-20330	US-PATENT-APPL-SN-487940	c10	N71-26434
US-PATENT-APPL-SN-466868	c22	N71-23599	US-PATENT-APPL-SN-488381	c14	N73-32321
US-PATENT-APPL-SN-466873	c17	N71-20743	US-PATENT-APPL-SN-488616	c07	N76-18117
US-PATENT-APPL-SN-466875	c08	N71-22707	US-PATENT-APPL-SN-488745	c26	N75-27127
US-PATENT-APPL-SN-467820	c28	N71-26779	US-PATENT-APPL-SN-489008	c23	N75-30256
US-PATENT-APPL-SN-468614	c60	N77-14751	US-PATENT-APPL-SN-489009	c33	N76-19339
US-PATENT-APPL-SN-468614	c60	N77-32731	US-PATENT-APPL-SN-489442	c25	N69-39884
US-PATENT-APPL-SN-468614	c60	N78-10709	US-PATENT-APPL-SN-491054	c14	N71-23174
US-PATENT-APPL-SN-468647	c21	N71-10771	US-PATENT-APPL-SN-491058	c09	N71-23443
US-PATENT-APPL-SN-468655	c15	N69-21471	US-PATENT-APPL-SN-491059	c09	N71-23015
US-PATENT-APPL-SN-469011	c11	N69-21540	US-PATENT-APPL-SN-491413	c74	N74-30118
US-PATENT-APPL-SN-469012	c25	N71-20747	US-PATENT-APPL-SN-491416	c35	N75-33368
US-PATENT-APPL-SN-469013	c14	N69-27423	US-PATENT-APPL-SN-491417	c37	N76-19437
US-PATENT-APPL-SN-470428	c33	N76-16332	US-PATENT-APPL-SN-491418	c31	N76-31365
US-PATENT-APPL-SN-470429	c33	N75-31329	US-PATENT-APPL-SN-491419	c32	N76-15330
US-PATENT-APPL-SN-470902	c06	N71-28808	US-PATENT-APPL-SN-491845	c28	N71-15659
US-PATENT-APPL-SN-471154	c09	N73-28084	US-PATENT-APPL-SN-492344	c05	N71-22896
US-PATENT-APPL-SN-472066	c31	N70-42075	US-PATENT-APPL-SN-493359	c20	N76-21275
US-PATENT-APPL-SN-472372	c07	N71-20791	US-PATENT-APPL-SN-493363	c33	N76-21390
US-PATENT-APPL-SN-472643	c33	N79-21265	US-PATENT-APPL-SN-493942	c14	N71-17659
US-PATENT-APPL-SN-472747	c31	N71-16081	US-PATENT-APPL-SN-493943	c15	N71-21529
US-PATENT-APPL-SN-472775	c35	N75-33369	US-PATENT-APPL-SN-494280	c28	N71-23081
US-PATENT-APPL-SN-473535	c31	N71-15637	US-PATENT-APPL-SN-494282	c15	N69-39735
US-PATENT-APPL-SN-473537	c08	N71-15908	US-PATENT-APPL-SN-494283	c31	N71-24035
US-PATENT-APPL-SN-473973	c02	N77-10001	US-PATENT-APPL-SN-494287	c03	N71-22974
US-PATENT-APPL-SN-474531	c31	N71-23009	US-PATENT-APPL-SN-494739	c07	N71-26291
US-PATENT-APPL-SN-474744	c35	N76-14431	US-PATENT-APPL-SN-495021	c44	N78-13526
US-PATENT-APPL-SN-474745	c37	N76-14463	US-PATENT-APPL-SN-495022	c60	N77-12721
US-PATENT-APPL-SN-474815	c33	N79-21264	US-PATENT-APPL-SN-4956205	c14	N71-22965
US-PATENT-APPL-SN-475299	c31	N71-17679	US-PATENT-APPL-SN-496779	c05	N76-29217
US-PATENT-APPL-SN-475336	c54	N75-27758	US-PATENT-APPL-SN-498167	c03	N71-10608
US-PATENT-APPL-SN-475337	c51	N76-29891	US-PATENT-APPL-SN-498168	c28	N71-21822
US-PATENT-APPL-SN-475338	c35	N76-15431	US-PATENT-APPL-SN-499122	c15	N71-24164
US-PATENT-APPL-SN-476759	c03	N70-42073	US-PATENT-APPL-SN-500435	c14	N71-21082
US-PATENT-APPL-SN-476761	c11	N71-10748	US-PATENT-APPL-SN-500446	c10	N71-23029
US-PATENT-APPL-SN-476763	c09	N69-21313	US-PATENT-APPL-SN-500979	c32	N76-18295
US-PATENT-APPL-SN-477333	c28	N70-41922	US-PATENT-APPL-SN-500980	c72	N76-15860
US-PATENT-APPL-SN-478491	c14	N69-21363	US-PATENT-APPL-SN-500981	c35	N77-10492
US-PATENT-APPL-SN-478800	c37	N76-19436	US-PATENT-APPL-SN-500982	c75	N76-17951
US-PATENT-APPL-SN-478802	c06	N74-27872	US-PATENT-APPL-SN-501011	c33	N76-18345
US-PATENT-APPL-SN-478803	c35	N75-29381	US-PATENT-APPL-SN-501012	c33	N76-14373
US-PATENT-APPL-SN-478803	c31	N76-14284	US-PATENT-APPL-SN-502124	c35	N76-16393
US-PATENT-APPL-SN-479353	c15	N71-23256	US-PATENT-APPL-SN-502135	c35	N76-15433
US-PATENT-APPL-SN-479357	c36	N77-19416	US-PATENT-APPL-SN-502136	c35	N75-27331
US-PATENT-APPL-SN-480210	c11	N71-21474	US-PATENT-APPL-SN-502137	c37	N76-21554
US-PATENT-APPL-SN-480211	c14	N71-26135	US-PATENT-APPL-SN-502138	c43	N77-10584
US-PATENT-APPL-SN-482104	c27	N76-22377	US-PATENT-APPL-SN-502693	c15	N71-20739
US-PATENT-APPL-SN-482105	c27	N76-23426	US-PATENT-APPL-SN-502701	c08	N71-23295
US-PATENT-APPL-SN-482307	c15	N71-21060	US-PATENT-APPL-SN-502709	c31	N71-21881
US-PATENT-APPL-SN-482311	c05	N71-22748	US-PATENT-APPL-SN-502710	c15	N71-23048
US-PATENT-APPL-SN-482313	c11	N69-24321	US-PATENT-APPL-SN-502729	c31	N70-41871
US-PATENT-APPL-SN-482670	c14	N71-21007	US-PATENT-APPL-SN-502739	c09	N71-23311
US-PATENT-APPL-SN-482952	c09	N71-28926	US-PATENT-APPL-SN-502740	c14	N69-27485
US-PATENT-APPL-SN-482953	c74	N76-18913	US-PATENT-APPL-SN-502743	c08	N71-19435
US-PATENT-APPL-SN-482967	c34	N76-18364	US-PATENT-APPL-SN-502746	c03	N69-39898
US-PATENT-APPL-SN-483301	c36	N77-26477	US-PATENT-APPL-SN-502750	c09	N71-19466
US-PATENT-APPL-SN-483817	c27	N79-21190	US-PATENT-APPL-SN-502753	c07	N69-39978
US-PATENT-APPL-SN-483850	c37	N76-14460	US-PATENT-APPL-SN-502756	c03	N71-23336
US-PATENT-APPL-SN-483851	c35	N76-15435	US-PATENT-APPL-SN-504225	c35	N76-16392
US-PATENT-APPL-SN-483852	c33	N75-30430	US-PATENT-APPL-SN-504266	c31	N71-21064
US-PATENT-APPL-SN-483857	c44	N76-14601	US-PATENT-APPL-SN-505320	c16	N71-18614
US-PATENT-APPL-SN-483858	c35	N76-18400	US-PATENT-APPL-SN-505321	c10	N71-22962
US-PATENT-APPL-SN-483885	c04	N71-23185	US-PATENT-APPL-SN-505765	c15	N71-23816

NUMBER INDEX

US-PATENT-APPL-SN-505819	c33	N76-16331	US-PATENT-APPL-SN-521998	c07	N69-24323
US-PATENT-APPL-SN-505881	c09	N76-24280	US-PATENT-APPL-SN-521999	c12	N71-20815
US-PATENT-APPL-SN-506135	c06	N71-20905	US-PATENT-APPL-SN-522109	c07	N78-17056
US-PATENT-APPL-SN-506137	c15	N71-23049	US-PATENT-APPL-SN-522551	c76	N76-20994
US-PATENT-APPL-SN-506804	c35	N76-18402	US-PATENT-APPL-SN-522552	c35	N76-16390
US-PATENT-APPL-SN-506908	c09	N71-18843	US-PATENT-APPL-SN-522556	c35	N76-15432
US-PATENT-APPL-SN-507254	c14	N71-22990	US-PATENT-APPL-SN-522794	c09	N71-23190
US-PATENT-APPL-SN-507257	c09	N71-19449	US-PATENT-APPL-SN-522795	c20	N71-16281
US-PATENT-APPL-SN-508169	c18	N71-27397	US-PATENT-APPL-SN-522971	c54	N76-24900
US-PATENT-APPL-SN-508170	c08	N71-22710	US-PATENT-APPL-SN-523511	c28	N71-20942
US-PATENT-APPL-SN-508601	c15	N71-22878	US-PATENT-APPL-SN-523632	c33	N78-17293
US-PATENT-APPL-SN-508784	c76	N76-25049	US-PATENT-APPL-SN-524746	c14	N73-28491
US-PATENT-APPL-SN-508873	c14	N71-23240	US-PATENT-APPL-SN-526438	c25	N76-22323
US-PATENT-APPL-SN-509460	c01	N71-13411	US-PATENT-APPL-SN-526448	c44	N76-14602
US-PATENT-APPL-SN-510150	c10	N71-26103	US-PATENT-APPL-SN-526449	c54	N76-14804
US-PATENT-APPL-SN-510155	c06	N71-11235	US-PATENT-APPL-SN-526450	c35	N77-14409
US-PATENT-APPL-SN-510474	c15	N71-23810	US-PATENT-APPL-SN-526631	c10	N71-19471
US-PATENT-APPL-SN-510475	c14	N71-23087	US-PATENT-APPL-SN-526664	c07	N69-24334
US-PATENT-APPL-SN-510677	c44	N77-19571	US-PATENT-APPL-SN-526665	c14	N69-24331
US-PATENT-APPL-SN-511299	c15	N71-22798	US-PATENT-APPL-SN-527331	c17	N73-28573
US-PATENT-APPL-SN-511334	c36	N77-32478	US-PATENT-APPL-SN-527727	c02	N76-16014
US-PATENT-APPL-SN-511346	c15	N77-10113	US-PATENT-APPL-SN-527728	c37	N76-18458
US-PATENT-APPL-SN-511564	c09	N69-39885	US-PATENT-APPL-SN-527790	c33	N76-14372
US-PATENT-APPL-SN-511567	c05	N71-12336	US-PATENT-APPL-SN-528031	c10	N69-39888
US-PATENT-APPL-SN-511887	c35	N76-15436	US-PATENT-APPL-SN-529593	c27	N71-21819
US-PATENT-APPL-SN-511894	c03	N76-32140	US-PATENT-APPL-SN-529594	c15	N69-27463
US-PATENT-APPL-SN-512352	c15	N70-33330	US-PATENT-APPL-SN-529594	c33	N71-29152
US-PATENT-APPL-SN-512509	c26	N75-27125	US-PATENT-APPL-SN-529609	c09	N69-39986
US-PATENT-APPL-SN-512559	c23	N71-22881	US-PATENT-APPL-SN-529884	c54	N78-18761
US-PATENT-APPL-SN-512561	c16	N71-25914	US-PATENT-APPL-SN-529884	c54	N79-21766
US-PATENT-APPL-SN-512562	c16	N71-24074	US-PATENT-APPL-SN-530958	c09	N71-22985
US-PATENT-APPL-SN-512825	c32	N76-15329	US-PATENT-APPL-SN-531565	c36	N76-24553
US-PATENT-APPL-SN-513346	c07	N79-14095	US-PATENT-APPL-SN-531572	c66	N76-19888
US-PATENT-APPL-SN-513389	c25	N75-12087	US-PATENT-APPL-SN-531575	c32	N76-31372
US-PATENT-APPL-SN-513576	c35	N76-29552	US-PATENT-APPL-SN-531642	c25	N71-21693
US-PATENT-APPL-SN-513611	c24	N76-22309	US-PATENT-APPL-SN-531647	c04	N76-20114
US-PATENT-APPL-SN-513611	c24	N79-17916	US-PATENT-APPL-SN-531647	c04	N77-19056
US-PATENT-APPL-SN-513612	c05	N77-17029	US-PATENT-APPL-SN-531649	c37	N75-13268
US-PATENT-APPL-SN-513613	c27	N78-15276	US-PATENT-APPL-SN-532006	c23	N71-24857
US-PATENT-APPL-SN-513689	c34	N74-34881	US-PATENT-APPL-SN-532784	c27	N75-29263
US-PATENT-APPL-SN-513690	c37	N76-20480	US-PATENT-APPL-SN-532784	c27	N78-17205
US-PATENT-APPL-SN-514407	c18	N71-22894	US-PATENT-APPL-SN-533555	c36	N76-18428
US-PATENT-APPL-SN-514546	c74	N76-20958	US-PATENT-APPL-SN-533556	c36	N76-29575
US-PATENT-APPL-SN-515484	c14	N71-22993	US-PATENT-APPL-SN-533608	c32	N76-21366
US-PATENT-APPL-SN-516150	c05	N71-19440	US-PATENT-APPL-SN-533650	c35	N75-27329
US-PATENT-APPL-SN-516151	c15	N70-41679	US-PATENT-APPL-SN-533659	c14	N73-30390
US-PATENT-APPL-SN-516152	c14	N71-23225	US-PATENT-APPL-SN-533734	c33	N77-10428
US-PATENT-APPL-SN-516153	c10	N71-28783	US-PATENT-APPL-SN-534265	c32	N76-21365
US-PATENT-APPL-SN-516154	c09	N69-24330	US-PATENT-APPL-SN-534266	c35	N76-24523
US-PATENT-APPL-SN-516155	c09	N71-23270	US-PATENT-APPL-SN-534295	c15	N71-21076
US-PATENT-APPL-SN-516158	c09	N71-19479	US-PATENT-APPL-SN-534564	c10	N71-22961
US-PATENT-APPL-SN-516159	c14	N70-41812	US-PATENT-APPL-SN-534901	c14	N70-36807
US-PATENT-APPL-SN-516160	c33	N71-16277	US-PATENT-APPL-SN-534966	c15	N71-20402
US-PATENT-APPL-SN-516162	c07	N71-28900	US-PATENT-APPL-SN-534975	c14	N71-24232
US-PATENT-APPL-SN-516793	c16	N71-22895	US-PATENT-APPL-SN-535169	c54	N78-17678
US-PATENT-APPL-SN-516794	c14	N70-42074	US-PATENT-APPL-SN-535308	c09	N71-28810
US-PATENT-APPL-SN-517100	c28	N70-33241	US-PATENT-APPL-SN-535410	c37	N76-15457
US-PATENT-APPL-SN-517156	c14	N71-23093	US-PATENT-APPL-SN-536210	c17	N71-24830
US-PATENT-APPL-SN-517157	c15	N71-22722	US-PATENT-APPL-SN-536216	c10	N71-23315
US-PATENT-APPL-SN-517158	c14	N71-23401	US-PATENT-APPL-SN-536217	c10	N71-23544
US-PATENT-APPL-SN-517159	c15	N71-20740	US-PATENT-APPL-SN-536535	c33	N76-14371
US-PATENT-APPL-SN-517858	c14	N71-21006	US-PATENT-APPL-SN-536761	c33	N76-19338
US-PATENT-APPL-SN-517869	c15	N71-23050	US-PATENT-APPL-SN-536762	c37	N76-22540
US-PATENT-APPL-SN-517995	c39	N76-31562	US-PATENT-APPL-SN-536785	c33	N76-31409
US-PATENT-APPL-SN-518487	c05	N71-11190	US-PATENT-APPL-SN-536786	c44	N77-32581
US-PATENT-APPL-SN-518544	c44	N76-24696	US-PATENT-APPL-SN-537024	c44	N76-27664
US-PATENT-APPL-SN-518545	c19	N76-22284	US-PATENT-APPL-SN-537480	c45	N76-31714
US-PATENT-APPL-SN-518546	c26	N76-18257	US-PATENT-APPL-SN-537615	c28	N71-22983
US-PATENT-APPL-SN-518684	c44	N76-22657	US-PATENT-APPL-SN-537617	c09	N71-22987
US-PATENT-APPL-SN-518685	c35	N76-14429	US-PATENT-APPL-SN-537979	c37	N77-11397
US-PATENT-APPL-SN-519160	c18	N71-20742	US-PATENT-APPL-SN-538047	c37	N76-27568
US-PATENT-APPL-SN-519161	c05	N71-20718	US-PATENT-APPL-SN-538166	c15	N71-21177
US-PATENT-APPL-SN-519395	c09	N69-24317	US-PATENT-APPL-SN-538168	c23	N71-16098
US-PATENT-APPL-SN-520838	c08	N71-18595	US-PATENT-APPL-SN-538863	c54	N78-17680
US-PATENT-APPL-SN-520839	c10	N71-19472	US-PATENT-APPL-SN-538905	c08	N71-18594
US-PATENT-APPL-SN-521006	c34	N77-10463	US-PATENT-APPL-SN-538907	c33	N76-19338
US-PATENT-APPL-SN-521007	c25	N75-13054	US-PATENT-APPL-SN-538908	c33	N71-22890
US-PATENT-APPL-SN-521601	c60	N76-14818	US-PATENT-APPL-SN-538911	c33	N71-22792
US-PATENT-APPL-SN-521602	c37	N76-18454	US-PATENT-APPL-SN-538913	c14	N71-17627
US-PATENT-APPL-SN-521603	c35	N75-29380	US-PATENT-APPL-SN-538982	c33	N77-14333
US-PATENT-APPL-SN-521619	c51	N75-13506	US-PATENT-APPL-SN-538983	c33	N76-18353
US-PATENT-APPL-SN-521620	c09	N77-10071	US-PATENT-APPL-SN-539237	c33	N71-16278
US-PATENT-APPL-SN-521753	c15	N70-41960	US-PATENT-APPL-SN-539255	c18	N71-26153
US-PATENT-APPL-SN-521754	c07	N71-22984	US-PATENT-APPL-SN-539255	c17	N72-28536
US-PATENT-APPL-SN-521755	c28	N71-28849	US-PATENT-APPL-SN-540414	c15	N71-22799
US-PATENT-APPL-SN-521816	c35	N77-19385	US-PATENT-APPL-SN-540779	c33	N79-12331
US-PATENT-APPL-SN-521817	c45	N76-21742	US-PATENT-APPL-SN-541399	c14	N71-20428
US-PATENT-APPL-SN-521994	c17	N71-23365	US-PATENT-APPL-SN-542157	c20	N76-21276
US-PATENT-APPL-SN-521996	c15	N69-27871	US-PATENT-APPL-SN-542192	c26	N75-27126

NUMBER INDEX

US-PATENT-APPL-SN-542713	.....	c23	N71-23976	US-PATENT-APPL-SN-563050	.....	c37	N76-31524
US-PATENT-APPL-SN-542754	.....	c34	N76-18374	US-PATENT-APPL-SN-563283	.....	c35	N76-18401
US-PATENT-APPL-SN-543206	.....	c05	N71-23159	US-PATENT-APPL-SN-563644	.....	c15	N71-18613
US-PATENT-APPL-SN-543774	.....	c06	N69-39733	US-PATENT-APPL-SN-563646	.....	c05	N71-23096
US-PATENT-APPL-SN-544611	.....	c33	N76-15373	US-PATENT-APPL-SN-563648	.....	c15	N71-17803
US-PATENT-APPL-SN-544895	.....	c07	N71-28809	US-PATENT-APPL-SN-563650	.....	c25	N69-21929
US-PATENT-APPL-SN-544899	.....	c09	N71-20569	US-PATENT-APPL-SN-563651	.....	c28	N71-23293
US-PATENT-APPL-SN-545223	.....	c03	N71-11056	US-PATENT-APPL-SN-564622	.....	c37	N77-31497
US-PATENT-APPL-SN-545224	.....	c15	N69-21362	US-PATENT-APPL-SN-564919	.....	c09	N71-23316
US-PATENT-APPL-SN-545228	.....	c07	N69-39736	US-PATENT-APPL-SN-565162	.....	c35	N79-14348
US-PATENT-APPL-SN-545229	.....	c03	N69-21469	US-PATENT-APPL-SN-565289	.....	c38	N77-17495
US-PATENT-APPL-SN-545282	.....	c35	N76-24524	US-PATENT-APPL-SN-565290	.....	c17	N76-22245
US-PATENT-APPL-SN-545283	.....	c32	N77-12239	US-PATENT-APPL-SN-566392	.....	c14	N71-23175
US-PATENT-APPL-SN-545284	.....	c34	N76-27517	US-PATENT-APPL-SN-566397	.....	c05	N71-23161
US-PATENT-APPL-SN-545535	.....	c03	N69-21539	US-PATENT-APPL-SN-566493	.....	c44	N76-29701
US-PATENT-APPL-SN-545805	.....	c15	N71-21744	US-PATENT-APPL-SN-566494	.....	c32	N77-30309
US-PATENT-APPL-SN-546142	.....	c09	N69-24329	US-PATENT-APPL-SN-566495	.....	c33	N77-17351
US-PATENT-APPL-SN-546148	.....	c11	N71-22875	US-PATENT-APPL-SN-566717	.....	c14	N71-24233
US-PATENT-APPL-SN-546149	.....	c16	N71-24170	US-PATENT-APPL-SN-567686	.....	c15	N71-22994
US-PATENT-APPL-SN-547072	.....	c15	N71-24043	US-PATENT-APPL-SN-567806	.....	c06	N71-22975
US-PATENT-APPL-SN-547072	.....	c35	N78-32397	US-PATENT-APPL-SN-568067	.....	c31	N71-22968
US-PATENT-APPL-SN-547677	.....	c10	N71-20448	US-PATENT-APPL-SN-568071	.....	c14	N69-27461
US-PATENT-APPL-SN-548468	.....	c37	N76-27567	US-PATENT-APPL-SN-568160	.....	c10	N71-18724
US-PATENT-APPL-SN-548559	.....	c44	N76-29700	US-PATENT-APPL-SN-568346	.....	c04	N69-27487
US-PATENT-APPL-SN-548808	.....	c14	N71-23227	US-PATENT-APPL-SN-568352	.....	c09	N71-20842
US-PATENT-APPL-SN-549418	.....	c36	N76-31512	US-PATENT-APPL-SN-568354	.....	c14	N71-22752
US-PATENT-APPL-SN-549860	.....	c03	N71-19438	US-PATENT-APPL-SN-568355	.....	c32	N71-23971
US-PATENT-APPL-SN-550088	.....	c07	N71-24612	US-PATENT-APPL-SN-568356	.....	c14	N71-15599
US-PATENT-APPL-SN-551182	.....	c03	N71-23187	US-PATENT-APPL-SN-568362	.....	c03	N69-39983
US-PATENT-APPL-SN-551184	.....	c37	N76-22541	US-PATENT-APPL-SN-568364	.....	c10	N71-26418
US-PATENT-APPL-SN-551694	.....	c31	N71-18611	US-PATENT-APPL-SN-568541	.....	c24	N77-28225
US-PATENT-APPL-SN-551815	.....	c02	N71-11038	US-PATENT-APPL-SN-568620	.....	c10	N71-26626
US-PATENT-APPL-SN-551846	.....	c03	N71-20492	US-PATENT-APPL-SN-568987	.....	c10	N71-19547
US-PATENT-APPL-SN-551933	.....	c33	N71-14032	US-PATENT-APPL-SN-569925	.....	c07	N77-17059
US-PATENT-APPL-SN-551961	.....	c15	N70-33376	US-PATENT-APPL-SN-570093	.....	c06	N71-17705
US-PATENT-APPL-SN-552108	.....	c07	N79-14096	US-PATENT-APPL-SN-570095	.....	c14	N71-23226
US-PATENT-APPL-SN-552344	.....	c09	N69-27463	US-PATENT-APPL-SN-570097	.....	c15	N69-23185
US-PATENT-APPL-SN-552454	.....	c35	N76-24525	US-PATENT-APPL-SN-570678	.....	c17	N71-25903
US-PATENT-APPL-SN-553209	.....	c35	N75-19628	US-PATENT-APPL-SN-571458	.....	c44	N77-10635
US-PATENT-APPL-SN-553210	.....	c35	N75-19627	US-PATENT-APPL-SN-571459	.....	c54	N78-14784
US-PATENT-APPL-SN-553687	.....	c44	N76-29704	US-PATENT-APPL-SN-571816	.....	c39	N75-31479
US-PATENT-APPL-SN-553891	.....	c23	N71-16341	US-PATENT-APPL-SN-571821	.....	c20	N76-22296
US-PATENT-APPL-SN-554277	.....	c07	N71-26579	US-PATENT-APPL-SN-572990	.....	c37	N78-16369
US-PATENT-APPL-SN-554897	.....	c15	N71-22982	US-PATENT-APPL-SN-572991	.....	c51	N77-22794
US-PATENT-APPL-SN-554899	.....	c15	N70-33382	US-PATENT-APPL-SN-573029	.....	c07	N79-14097
US-PATENT-APPL-SN-554949	.....	c06	N71-20717	US-PATENT-APPL-SN-573432	.....	c14	N71-23790
US-PATENT-APPL-SN-554950	.....	c17	N71-23248	US-PATENT-APPL-SN-574208	.....	c37	N76-29590
US-PATENT-APPL-SN-554959	.....	c27	N79-21191	US-PATENT-APPL-SN-574218	.....	c52	N76-29895
US-PATENT-APPL-SN-555189	.....	c08	N71-27255	US-PATENT-APPL-SN-574219	.....	c35	N76-31490
US-PATENT-APPL-SN-555336	.....	c33	N76-27473	US-PATENT-APPL-SN-574280	.....	c15	N69-21460
US-PATENT-APPL-SN-555641	.....	c51	N76-29891	US-PATENT-APPL-SN-574282	.....	c15	N69-23190
US-PATENT-APPL-SN-555750	.....	c39	N75-21671	US-PATENT-APPL-SN-574282	.....	c15	N71-23025
US-PATENT-APPL-SN-555750	.....	c27	N79-12221	US-PATENT-APPL-SN-574283	.....	c14	N69-24257
US-PATENT-APPL-SN-556784	.....	c09	N71-20447	US-PATENT-APPL-SN-574284	.....	c08	N71-19763
US-PATENT-APPL-SN-556830	.....	c15	N71-26294	US-PATENT-APPL-SN-574290	.....	c14	N71-20439
US-PATENT-APPL-SN-557016	.....	c15	N71-23086	US-PATENT-APPL-SN-575291	.....	c33	N71-29151
US-PATENT-APPL-SN-557430	.....	c52	N77-14737	US-PATENT-APPL-SN-575475	.....	c05	N69-23192
US-PATENT-APPL-SN-557444	.....	c33	N76-31410	US-PATENT-APPL-SN-575930	.....	c06	N71-23230
US-PATENT-APPL-SN-557448	.....	c45	N76-17656	US-PATENT-APPL-SN-576182	.....	c33	N71-24276
US-PATENT-APPL-SN-557565	.....	c24	N77-27187	US-PATENT-APPL-SN-576183	.....	c09	N71-23525
US-PATENT-APPL-SN-557584	.....	c09	N71-20851	US-PATENT-APPL-SN-576195	.....	c14	N71-21079
US-PATENT-APPL-SN-557881	.....	c03	N71-24605	US-PATENT-APPL-SN-576488	.....	c44	N76-28635
US-PATENT-APPL-SN-557868	.....	c14	N70-41682	US-PATENT-APPL-SN-576488	.....	c44	N78-24609
US-PATENT-APPL-SN-557871	.....	c10	N71-21483	US-PATENT-APPL-SN-576521	.....	c09	N71-20864
US-PATENT-APPL-SN-558600	.....	c74	N77-10899	US-PATENT-APPL-SN-576774	.....	c60	N77-19760
US-PATENT-APPL-SN-559055	.....	c33	N71-29046	US-PATENT-APPL-SN-576792	.....	c14	N71-26136
US-PATENT-APPL-SN-559349	.....	c33	N71-24145	US-PATENT-APPL-SN-576797	.....	c09	N69-24318
US-PATENT-APPL-SN-559350	.....	c33	N71-28892	US-PATENT-APPL-SN-577114	.....	c15	N69-24320
US-PATENT-APPL-SN-559351	.....	c14	N69-39785	US-PATENT-APPL-SN-577115	.....	c15	N71-17647
US-PATENT-APPL-SN-559845	.....	c35	N76-29551	US-PATENT-APPL-SN-577545	.....	c08	N71-18693
US-PATENT-APPL-SN-559846	.....	c34	N79-13289	US-PATENT-APPL-SN-577546	.....	c31	N71-23008
US-PATENT-APPL-SN-559847	.....	c34	N79-13288	US-PATENT-APPL-SN-577548	.....	c09	N69-27422
US-PATENT-APPL-SN-560891	.....	c73	N78-19920	US-PATENT-APPL-SN-577548	.....	c14	N72-28438
US-PATENT-APPL-SN-560967	.....	c15	N69-21922	US-PATENT-APPL-SN-577549	.....	c15	N71-22721
US-PATENT-APPL-SN-560968	.....	c10	N71-24863	US-PATENT-APPL-SN-577775	.....	c14	N71-17574
US-PATENT-APPL-SN-560969	.....	c14	N71-15622	US-PATENT-APPL-SN-577778	.....	c03	N71-11050
US-PATENT-APPL-SN-561020	.....	c44	N76-23675	US-PATENT-APPL-SN-578240	.....	c34	N77-18382
US-PATENT-APPL-SN-561223	.....	c14	N71-20427	US-PATENT-APPL-SN-578241	.....	c52	N76-29896
US-PATENT-APPL-SN-561764	.....	c32	N77-10392	US-PATENT-APPL-SN-578397	.....	c20	N79-21124
US-PATENT-APPL-SN-561956	.....	c35	N77-17426	US-PATENT-APPL-SN-578700	.....	c35	N76-19408
US-PATENT-APPL-SN-562443	.....	c09	N69-39734	US-PATENT-APPL-SN-578916	.....	c14	N71-23036
US-PATENT-APPL-SN-562444	.....	c14	N71-22995	US-PATENT-APPL-SN-578923	.....	c15	N71-21403
US-PATENT-APPL-SN-562445	.....	c14	N71-23797	US-PATENT-APPL-SN-578925	.....	c23	N71-16355
US-PATENT-APPL-SN-562499	.....	c32	N77-31350	US-PATENT-APPL-SN-578926	.....	c06	N69-39936
US-PATENT-APPL-SN-562558	.....	c31	N79-21227	US-PATENT-APPL-SN-578928	.....	c26	N71-21824
US-PATENT-APPL-SN-562933	.....	c10	N71-24799	US-PATENT-APPL-SN-578931	.....	c23	N71-21882
US-PATENT-APPL-SN-562934	.....	c09	N69-21468	US-PATENT-APPL-SN-578932	.....	c08	N71-12505
US-PATENT-APPL-SN-562992	.....	c27	N78-32261	US-PATENT-APPL-SN-579300	.....	c20	N79-21123
US-PATENT-APPL-SN-563049	.....	c17	N76-29347	US-PATENT-APPL-SN-579121	.....	c15	N71-29136
				US-PATENT-APPL-SN-579375	.....	c07	N77-14025

NUMBER INDEX

US-PATENT-APPL-SN-579376	.....	c20	N79-21125	US-PATENT-APPL-SN-598968	.....	c33	N77-17354
US-PATENT-APPL-SN-579989	.....	c34	N77-32413	US-PATENT-APPL-SN-598969	.....	c44	N78-17460
US-PATENT-APPL-SN-580365	.....	c15	N71-23255	US-PATENT-APPL-SN-598969	.....	c44	N79-14529
US-PATENT-APPL-SN-581514	.....	c70	N75-26789	US-PATENT-APPL-SN-599284	.....	c35	N77-14411
US-PATENT-APPL-SN-581750	.....	c07	N78-17055	US-PATENT-APPL-SN-599975	.....	c08	N69-21928
US-PATENT-APPL-SN-581751	.....	c37	N78-10468	US-PATENT-APPL-SN-600266	.....	c14	N71-20430
US-PATENT-APPL-SN-581843	.....	c31	N79-21226	US-PATENT-APPL-SN-600682	.....	c14	N71-20461
US-PATENT-APPL-SN-582171	.....	c32	N71-16428	US-PATENT-APPL-SN-601228	.....	c15	N71-17652
US-PATENT-APPL-SN-582213	.....	c32	N74-22096	US-PATENT-APPL-SN-601229	.....	c14	N71-26474
US-PATENT-APPL-SN-582318	.....	c33	N76-27472	US-PATENT-APPL-SN-602617	.....	c37	N77-23483
US-PATENT-APPL-SN-582609	.....	c10	N71-19467	US-PATENT-APPL-SN-602618	.....	c44	N76-31667
US-PATENT-APPL-SN-583055	.....	c07	N78-18067	US-PATENT-APPL-SN-602828	.....	c09	N71-13531
US-PATENT-APPL-SN-583056	.....	c37	N78-17384	US-PATENT-APPL-SN-603396	.....	c14	N69-23191
US-PATENT-APPL-SN-583485	.....	c33	N77-28385	US-PATENT-APPL-SN-603397	.....	c26	N71-23292
US-PATENT-APPL-SN-583486	.....	c33	N77-26386	US-PATENT-APPL-SN-604374	.....	c44	N76-29699
US-PATENT-APPL-SN-583487	.....	c52	N76-19785	US-PATENT-APPL-SN-605090	.....	c15	N71-19485
US-PATENT-APPL-SN-584015	.....	c14	N71-26475	US-PATENT-APPL-SN-605091	.....	c15	N71-26346
US-PATENT-APPL-SN-584066	.....	c10	N71-20852	US-PATENT-APPL-SN-605092	.....	c05	N71-23317
US-PATENT-APPL-SN-584067	.....	c07	N71-12392	US-PATENT-APPL-SN-605093	.....	c17	N71-24911
US-PATENT-APPL-SN-584070	.....	c09	N69-27500	US-PATENT-APPL-SN-605094	.....	c09	N71-24808
US-PATENT-APPL-SN-584071	.....	c26	N71-16037	US-PATENT-APPL-SN-605095	.....	c10	N71-19417
US-PATENT-APPL-SN-584072	.....	c15	N69-39786	US-PATENT-APPL-SN-605096	.....	c15	N71-24834
US-PATENT-APPL-SN-584094	.....	c26	N77-20201	US-PATENT-APPL-SN-605097	.....	c14	N69-21923
US-PATENT-APPL-SN-584914	.....	c54	N78-17679	US-PATENT-APPL-SN-605098	.....	c09	N71-26092
US-PATENT-APPL-SN-584914	.....	c54	N79-21765	US-PATENT-APPL-SN-605099	.....	c09	N71-23548
US-PATENT-APPL-SN-585217	.....	c54	N78-17677	US-PATENT-APPL-SN-605100	.....	c15	N71-21536
US-PATENT-APPL-SN-585420	.....	c35	N76-31489	US-PATENT-APPL-SN-605102	.....	c09	N69-39987
US-PATENT-APPL-SN-585988	.....	c33	N75-29318	US-PATENT-APPL-SN-605518	.....	c15	N71-23023
US-PATENT-APPL-SN-586324	.....	c05	N71-26293	US-PATENT-APPL-SN-605964	.....	c06	N73-30103
US-PATENT-APPL-SN-586325	.....	c31	N71-24315	US-PATENT-APPL-SN-605994	.....	c06	N73-30101
US-PATENT-APPL-SN-586329	.....	c05	N71-24623	US-PATENT-APPL-SN-606027	.....	c06	N73-30099
US-PATENT-APPL-SN-586330	.....	c05	N71-12344	US-PATENT-APPL-SN-606036	.....	c06	N73-30100
US-PATENT-APPL-SN-588635	.....	c21	N71-15642	US-PATENT-APPL-SN-606462	.....	c08	N71-24891
US-PATENT-APPL-SN-588651	.....	c31	N71-24813	US-PATENT-APPL-SN-606463	.....	c14	N71-24864
US-PATENT-APPL-SN-588671	.....	c03	N71-23354	US-PATENT-APPL-SN-606464	.....	c15	N71-18579
US-PATENT-APPL-SN-588721	.....	c27	N78-33228	US-PATENT-APPL-SN-606891	.....	c44	N77-14581
US-PATENT-APPL-SN-589119	.....	c32	N77-32342	US-PATENT-APPL-SN-607461	.....	c05	N71-12346
US-PATENT-APPL-SN-589172	.....	c27	N79-14214	US-PATENT-APPL-SN-607484	.....	c09	N71-26002
US-PATENT-APPL-SN-589173	.....	c32	N77-12240	US-PATENT-APPL-SN-607608	.....	c14	N69-27484
US-PATENT-APPL-SN-589233	.....	c33	N77-14335	US-PATENT-APPL-SN-607969	.....	c09	N76-23273
US-PATENT-APPL-SN-590141	.....	c03	N69-24267	US-PATENT-APPL-SN-608247	.....	c15	N71-20813
US-PATENT-APPL-SN-590144	.....	c15	N71-15606	US-PATENT-APPL-SN-608482	.....	c74	N77-20882
US-PATENT-APPL-SN-590145	.....	c07	N69-39980	US-PATENT-APPL-SN-608483	.....	c09	N77-19076
US-PATENT-APPL-SN-590146	.....	c09	N69-21926	US-PATENT-APPL-SN-608944	.....	c15	N71-23798
US-PATENT-APPL-SN-590147	.....	c15	N71-21489	US-PATENT-APPL-SN-610723	.....	c14	N71-23755
US-PATENT-APPL-SN-590158	.....	c05	N71-24147	US-PATENT-APPL-SN-610724	.....	c31	N71-28851
US-PATENT-APPL-SN-590159	.....	c09	N69-24324	US-PATENT-APPL-SN-610728	.....	c31	N71-22969
US-PATENT-APPL-SN-590182	.....	c37	N76-29588	US-PATENT-APPL-SN-610801	.....	c76	N77-32919
US-PATENT-APPL-SN-590183	.....	c74	N79-13855	US-PATENT-APPL-SN-610802	.....	c35	N77-20400
US-PATENT-APPL-SN-590975	.....	c44	N78-31525	US-PATENT-APPL-SN-611414	.....	c46	N74-23068
US-PATENT-APPL-SN-591000	.....	c15	N71-24044	US-PATENT-APPL-SN-611414	.....	c46	N74-23069
US-PATENT-APPL-SN-591004	.....	c07	N71-11266	US-PATENT-APPL-SN-612265	.....	c14	N72-22842
US-PATENT-APPL-SN-591007	.....	c16	N69-27491	US-PATENT-APPL-SN-612568	.....	c15	N71-28952
US-PATENT-APPL-SN-591014	.....	c28	N71-24736	US-PATENT-APPL-SN-612740	.....	c25	N71-20563
US-PATENT-APPL-SN-591568	.....	c74	N76-31998	US-PATENT-APPL-SN-612899	.....	c07	N77-18154
US-PATENT-APPL-SN-591569	.....	c37	N77-12402	US-PATENT-APPL-SN-612964	.....	c20	N77-10148
US-PATENT-APPL-SN-591930	.....	c03	N69-21330	US-PATENT-APPL-SN-612965	.....	c52	N77-14735
US-PATENT-APPL-SN-592159	.....	c07	N76-27232	US-PATENT-APPL-SN-612966	.....	c35	N78-12390
US-PATENT-APPL-SN-592680	.....	c15	N71-22877	US-PATENT-APPL-SN-612967	.....	c74	N77-18893
US-PATENT-APPL-SN-592694	.....	c05	N71-12342	US-PATENT-APPL-SN-613004	.....	c71	N77-26919
US-PATENT-APPL-SN-593142	.....	c37	N77-17464	US-PATENT-APPL-SN-613235	.....	c14	N73-30394
US-PATENT-APPL-SN-593593	.....	c06	N71-11239	US-PATENT-APPL-SN-613734	.....	c52	N77-14738
US-PATENT-APPL-SN-593594	.....	c06	N71-11236	US-PATENT-APPL-SN-613979	.....	c33	N71-14035
US-PATENT-APPL-SN-593595	.....	c06	N71-24740	US-PATENT-APPL-SN-615030	.....	c35	N78-19465
US-PATENT-APPL-SN-593604	.....	c11	N69-27466	US-PATENT-APPL-SN-616332	.....	c24	N77-27188
US-PATENT-APPL-SN-593605	.....	c06	N71-11242	US-PATENT-APPL-SN-616333	.....	c33	N76-32457
US-PATENT-APPL-SN-593606	.....	c06	N71-11243	US-PATENT-APPL-SN-616472	.....	c74	N77-22951
US-PATENT-APPL-SN-593607	.....	c07	N71-26102	US-PATENT-APPL-SN-616528	.....	c24	N79-17916
US-PATENT-APPL-SN-594584	.....	c14	N71-25892	US-PATENT-APPL-SN-617021	.....	c23	N71-16101
US-PATENT-APPL-SN-594587	.....	c28	N71-21493	US-PATENT-APPL-SN-617022	.....	c07	N69-27462
US-PATENT-APPL-SN-594633	.....	c15	N71-24046	US-PATENT-APPL-SN-617202	.....	c74	N77-28933
US-PATENT-APPL-SN-595197	.....	c33	N77-10429	US-PATENT-APPL-SN-617612	.....	c52	N77-10780
US-PATENT-APPL-SN-595254	.....	c17	N78-17140	US-PATENT-APPL-SN-617770	.....	c14	N71-23267
US-PATENT-APPL-SN-595745	.....	c37	N77-32501	US-PATENT-APPL-SN-617774	.....	c18	N71-16124
US-PATENT-APPL-SN-595747	.....	c37	N77-32500	US-PATENT-APPL-SN-617775	.....	c06	N71-28807
US-PATENT-APPL-SN-596338	.....	c09	N71-20816	US-PATENT-APPL-SN-617776	.....	c18	N69-39895
US-PATENT-APPL-SN-596641	.....	c07	N77-23106	US-PATENT-APPL-SN-617778	.....	c14	N71-26244
US-PATENT-APPL-SN-596641	.....	c37	N78-10467	US-PATENT-APPL-SN-617779	.....	c09	N69-39929
US-PATENT-APPL-SN-596733	.....	c15	N72-11389	US-PATENT-APPL-SN-617783	.....	c15	N69-24266
US-PATENT-APPL-SN-596735	.....	c32	N71-24285	US-PATENT-APPL-SN-617895	.....	c32	N77-14292
US-PATENT-APPL-SN-596787	.....	c37	N77-19458	US-PATENT-APPL-SN-618594	.....	c37	N77-13418
US-PATENT-APPL-SN-596787	.....	c37	N78-31426	US-PATENT-APPL-SN-618969	.....	c05	N71-26333
US-PATENT-APPL-SN-596788	.....	c33	N76-21390	US-PATENT-APPL-SN-619519	.....	c32	N71-16106
US-PATENT-APPL-SN-596905	.....	c24	N77-19170	US-PATENT-APPL-SN-619520	.....	c05	N69-21380
US-PATENT-APPL-SN-598118	.....	c15	N69-27490	US-PATENT-APPL-SN-619521	.....	c06	N69-39889
US-PATENT-APPL-SN-598119	.....	c08	N71-19437	US-PATENT-APPL-SN-619903	.....	c15	N69-27505
US-PATENT-APPL-SN-598120	.....	c08	N71-18602	US-PATENT-APPL-SN-619907	.....	c09	N69-21543
US-PATENT-APPL-SN-598504	.....	c37	N77-14477	US-PATENT-APPL-SN-619908	.....	c08	N71-20571
US-PATENT-APPL-SN-598967	.....	c31	N77-10229	US-PATENT-APPL-SN-619986	.....	c37	N75-32465

NUMBER INDEX

US-PATENT-APPL-SN-620675	c35	N78-19466	US-PATENT-APPL-SN-640785	c09	N69-24333
US-PATENT-APPL-SN-621098	c09	N71-20446	US-PATENT-APPL-SN-640786	c15	N71-24695
US-PATENT-APPL-SN-621714	c15	N71-19569	US-PATENT-APPL-SN-640787	c28	N71-24321
US-PATENT-APPL-SN-621715	c05	N71-11207	US-PATENT-APPL-SN-640788	c15	N69-27502
US-PATENT-APPL-SN-621742	c28	N71-23968	US-PATENT-APPL-SN-640789	c15	N69-27504
US-PATENT-APPL-SN-623156	c04	N77-19056	US-PATENT-APPL-SN-640806	c27	N76-15314
US-PATENT-APPL-SN-623187	c34	N77-19353	US-PATENT-APPL-SN-641420	c03	N71-23449
US-PATENT-APPL-SN-623188	c54	N77-21844	US-PATENT-APPL-SN-641431	c30	N71-16090
US-PATENT-APPL-SN-623238	c51	N77-25769	US-PATENT-APPL-SN-641441	c08	N71-18751
US-PATENT-APPL-SN-623536	c09	N78-18083	US-PATENT-APPL-SN-641784	c37	N77-32499
US-PATENT-APPL-SN-625732	c35	N77-18417	US-PATENT-APPL-SN-641801	c35	N76-14434
US-PATENT-APPL-SN-625733	c26	N77-28265	US-PATENT-APPL-SN-641802	c34	N77-30399
US-PATENT-APPL-SN-625734	c35	N78-10428	US-PATENT-APPL-SN-641803	c35	N78-18391
US-PATENT-APPL-SN-625759	c37	N77-14478	US-PATENT-APPL-SN-641862	c54	N76-15792
US-PATENT-APPL-SN-625781	c33	N77-31404	US-PATENT-APPL-SN-643041	c44	N78-19599
US-PATENT-APPL-SN-626376	c05	N71-11189	US-PATENT-APPL-SN-643043	c35	N78-13400
US-PATENT-APPL-SN-626942	c51	N77-27677	US-PATENT-APPL-SN-643332	c15	N71-14932
US-PATENT-APPL-SN-627257	c08	N71-12504	US-PATENT-APPL-SN-643895	c31	N76-16245
US-PATENT-APPL-SN-627599	c18	N71-16046	US-PATENT-APPL-SN-643897	c73	N78-32848
US-PATENT-APPL-SN-628094	c16	N71-20400	US-PATENT-APPL-SN-644444	c09	N71-18721
US-PATENT-APPL-SN-628221	c07	N78-18066	US-PATENT-APPL-SN-644446	c14	N71-24693
US-PATENT-APPL-SN-628246	c15	N71-17687	US-PATENT-APPL-SN-644447	c14	N71-24234
US-PATENT-APPL-SN-628247	c09	N69-21542	US-PATENT-APPL-SN-644448	c17	N69-25147
US-PATENT-APPL-SN-628248	c14	N69-27432	US-PATENT-APPL-SN-644799	c17	N71-15468
US-PATENT-APPL-SN-629456	c37	N77-14479	US-PATENT-APPL-SN-645500	c74	N77-28932
US-PATENT-APPL-SN-629457	c35	N77-32454	US-PATENT-APPL-SN-645502	c24	N76-19234
US-PATENT-APPL-SN-629458	c35	N78-17357	US-PATENT-APPL-SN-645503	c44	N76-16621
US-PATENT-APPL-SN-629759	c15	N71-16076	US-PATENT-APPL-SN-645507	c26	N77-32280
US-PATENT-APPL-SN-630579	c35	N77-24454	US-PATENT-APPL-SN-645508	c44	N77-14580
US-PATENT-APPL-SN-630582	c45	N79-10570	US-PATENT-APPL-SN-645510	c32	N77-30308
US-PATENT-APPL-SN-630583	c33	N77-24375	US-PATENT-APPL-SN-645563	c31	N71-20396
US-PATENT-APPL-SN-631341	c60	N78-17691	US-PATENT-APPL-SN-645571	c35	N77-14407
US-PATENT-APPL-SN-631848	c09	N71-12514	US-PATENT-APPL-SN-645573	c24	N71-25555
US-PATENT-APPL-SN-632104	c09	N71-19470	US-PATENT-APPL-SN-645584	c08	N71-12894
US-PATENT-APPL-SN-632111	c37	N79-10422	US-PATENT-APPL-SN-646124	c15	N71-23817
US-PATENT-APPL-SN-632112	c35	N77-22449	US-PATENT-APPL-SN-646424	c07	N69-27460
US-PATENT-APPL-SN-632152	c10	N71-24798	US-PATENT-APPL-SN-646704	c36	N77-25899
US-PATENT-APPL-SN-632154	c09	N69-39984	US-PATENT-APPL-SN-646934	c08	N71-18692
US-PATENT-APPL-SN-632162	c14	N69-39937	US-PATENT-APPL-SN-647298	c31	N71-16102
US-PATENT-APPL-SN-632163	c30	N71-23723	US-PATENT-APPL-SN-648034	c09	N79-21083
US-PATENT-APPL-SN-632164	c15	N69-24319	US-PATENT-APPL-SN-648700	c74	N78-13874
US-PATENT-APPL-SN-632165	c14	N71-26266	US-PATENT-APPL-SN-649075	c14	N71-15600
US-PATENT-APPL-SN-633876	c27	N78-19302	US-PATENT-APPL-SN-649076	c08	N71-24890
US-PATENT-APPL-SN-633876	c27	N79-14213	US-PATENT-APPL-SN-649078	c07	N71-19493
US-PATENT-APPL-SN-633877	c27	N77-13217	US-PATENT-APPL-SN-649356	c09	N71-23189
US-PATENT-APPL-SN-634038	c25	N71-16073	US-PATENT-APPL-SN-649357	c08	N71-12500
US-PATENT-APPL-SN-634040	c15	N71-19489	US-PATENT-APPL-SN-649358	c07	N71-11267
US-PATENT-APPL-SN-634060	c09	N69-39897	US-PATENT-APPL-SN-649359	c15	N71-18701
US-PATENT-APPL-SN-634205	c35	N77-14406	US-PATENT-APPL-SN-649360	c23	N71-16365
US-PATENT-APPL-SN-634214	c73	N78-28913	US-PATENT-APPL-SN-650166	c09	N71-23191
US-PATENT-APPL-SN-634304	c27	N79-18052	US-PATENT-APPL-SN-651002	c08	N79-14108
US-PATENT-APPL-SN-635325	c14	N69-27431	US-PATENT-APPL-SN-651007	c74	N78-17865
US-PATENT-APPL-SN-635326	c14	N71-18482	US-PATENT-APPL-SN-651009	c26	N78-18182
US-PATENT-APPL-SN-635327	c12	N69-39988	US-PATENT-APPL-SN-651627	c26	N72-25679
US-PATENT-APPL-SN-635328	c09	N69-21467	US-PATENT-APPL-SN-651972	c27	N74-23125
US-PATENT-APPL-SN-635519	c35	N77-24455	US-PATENT-APPL-SN-652948	c52	N77-14736
US-PATENT-APPL-SN-635531	c33	N77-14334	US-PATENT-APPL-SN-653277	c31	N71-23912
US-PATENT-APPL-SN-6355970	c15	N69-21465	US-PATENT-APPL-SN-653278	c14	N69-27503
US-PATENT-APPL-SN-635972	c18	N71-23710	US-PATENT-APPL-SN-653316	c25	N77-32255
US-PATENT-APPL-SN-636193	c74	N78-15880	US-PATENT-APPL-SN-653422	c35	N77-20401
US-PATENT-APPL-SN-636796	c35	N78-17358	US-PATENT-APPL-SN-653682	c39	N78-10493
US-PATENT-APPL-SN-636878	c14	N71-20442	US-PATENT-APPL-SN-654787	c07	N77-32148
US-PATENT-APPL-SN-637247	c35	N77-10493	US-PATENT-APPL-SN-655149	c07	N77-23106
US-PATENT-APPL-SN-637249	c38	N76-28563	US-PATENT-APPL-SN-655675	c17	N71-24142
US-PATENT-APPL-SN-637268	c47	N77-10753	US-PATENT-APPL-SN-655677	c08	N71-19432
US-PATENT-APPL-SN-637269	c52	N77-28717	US-PATENT-APPL-SN-655724	c15	N71-22706
US-PATENT-APPL-SN-637882	c15	N71-17650	US-PATENT-APPL-SN-656952	c09	N71-12519
US-PATENT-APPL-SN-638192	c10	N71-26415	US-PATENT-APPL-SN-656953	c14	N71-17585
US-PATENT-APPL-SN-638194	c33	N71-21507	US-PATENT-APPL-SN-656993	c09	N71-24843
US-PATENT-APPL-SN-638707	c14	N69-27486	US-PATENT-APPL-SN-656995	c21	N71-14732
US-PATENT-APPL-SN-639589	c28	N70-33372	US-PATENT-APPL-SN-657742	c18	N71-26100
US-PATENT-APPL-SN-640154	c09	N71-18600	US-PATENT-APPL-SN-657903	c07	N76-18131
US-PATENT-APPL-SN-640447	c15	N71-19486	US-PATENT-APPL-SN-657907	c27	N78-17213
US-PATENT-APPL-SN-640448	c08	N71-19420	US-PATENT-APPL-SN-657995	c35	N77-22450
US-PATENT-APPL-SN-640449	c09	N71-19516	US-PATENT-APPL-SN-657996	c60	N78-10709
US-PATENT-APPL-SN-640450	c15	N71-17694	US-PATENT-APPL-SN-657997	c60	N77-32731
US-PATENT-APPL-SN-640452	c09	N71-12513	US-PATENT-APPL-SN-657998	c27	N78-32262
US-PATENT-APPL-SN-640453	c23	N71-16099	US-PATENT-APPL-SN-658132	c44	N77-32580
US-PATENT-APPL-SN-640454	c06	N71-11238	US-PATENT-APPL-SN-658133	c71	N78-10837
US-PATENT-APPL-SN-640455	c10	N71-23099	US-PATENT-APPL-SN-658449	c32	N77-20289
US-PATENT-APPL-SN-640456	c03	N71-26726	US-PATENT-APPL-SN-658450	c37	N77-22482
US-PATENT-APPL-SN-640457	c03	N71-11052	US-PATENT-APPL-SN-658487	c37	N77-17466
US-PATENT-APPL-SN-640458	c15	N71-23811	US-PATENT-APPL-SN-658955	c14	N71-15605
US-PATENT-APPL-SN-640459	c10	N71-18723	US-PATENT-APPL-SN-658956	c15	N71-15607
US-PATENT-APPL-SN-640460	c14	N69-21541	US-PATENT-APPL-SN-658957	c14	N71-17584
US-PATENT-APPL-SN-640462	c15	N71-20443	US-PATENT-APPL-SN-658964	c19	N71-26674
US-PATENT-APPL-SN-640781	c03	N69-25146	US-PATENT-APPL-SN-659882	c37	N78-13436
US-PATENT-APPL-SN-640783	c09	N71-26000	US-PATENT-APPL-SN-660571	c26	N71-23654
US-PATENT-APPL-SN-640784	c15	N69-39935	US-PATENT-APPL-SN-660572	c15	N71-15571

NUMBER INDEX

US-PATENT-APPL-SN-660573	.....	c15 N71-28936	US-PATENT-APPL-SN-676432	.....	c28 N78-24365
US-PATENT-APPL-SN-660841	.....	c14 N71-15621	US-PATENT-APPL-SN-676433	.....	c52 N77-28716
US-PATENT-APPL-SN-660842	.....	c14 N71-23726	US-PATENT-APPL-SN-676957	.....	c32 N77-18307
US-PATENT-APPL-SN-660843	.....	c08 N71-24650	US-PATENT-APPL-SN-676958	.....	c54 N76-22914
US-PATENT-APPL-SN-661170	.....	c14 N71-24809	US-PATENT-APPL-SN-677351	.....	c35 N77-32455
US-PATENT-APPL-SN-662175	.....	c09 N77-27131	US-PATENT-APPL-SN-677352	.....	c43 N78-10529
US-PATENT-APPL-SN-662176	.....	c32 N77-21267	US-PATENT-APPL-SN-677353	.....	c52 N78-14773
US-PATENT-APPL-SN-662181	.....	c34 N76-23522	US-PATENT-APPL-SN-677475	.....	c32 N71-26681
US-PATENT-APPL-SN-662182	.....	c19 N76-18227	US-PATENT-APPL-SN-677476	.....	c14 N71-17586
US-PATENT-APPL-SN-662182	.....	c37 N78-27424	US-PATENT-APPL-SN-677505	.....	c09 N71-13521
US-PATENT-APPL-SN-662763	.....	c15 N73-12489	US-PATENT-APPL-SN-677506	.....	c16 N71-15567
US-PATENT-APPL-SN-662828	.....	c11 N71-18578	US-PATENT-APPL-SN-677508	.....	c16 N71-15551
US-PATENT-APPL-SN-662829	.....	c15 N71-15597	US-PATENT-APPL-SN-678520	.....	c20 N78-24275
US-PATENT-APPL-SN-663008	.....	c37 N77-28486	US-PATENT-APPL-SN-678700	.....	c05 N71-19439
US-PATENT-APPL-SN-663180	.....	c10 N71-23663	US-PATENT-APPL-SN-679055	.....	c08 N71-24633
US-PATENT-APPL-SN-664091	.....	c43 N79-17288	US-PATENT-APPL-SN-679862	.....	c20 N71-16340
US-PATENT-APPL-SN-665032	.....	c74 N77-22950	US-PATENT-APPL-SN-679885	.....	c09 N71-12521
US-PATENT-APPL-SN-665033	.....	c20 N77-20162	US-PATENT-APPL-SN-680015	.....	c52 N79-14750
US-PATENT-APPL-SN-665034	.....	c44 N76-19552	US-PATENT-APPL-SN-680067	.....	c07 N77-27116
US-PATENT-APPL-SN-665209	.....	c14 N71-23725	US-PATENT-APPL-SN-680938	.....	c74 N77-26942
US-PATENT-APPL-SN-665676	.....	c14 N71-19568	US-PATENT-APPL-SN-680939	.....	c44 N78-10554
US-PATENT-APPL-SN-665679	.....	c15 N71-20395	US-PATENT-APPL-SN-680957	.....	c35 N77-27366
US-PATENT-APPL-SN-665680	.....	c24 N71-16213	US-PATENT-APPL-SN-680958	.....	c74 N78-18905
US-PATENT-APPL-SN-665681	.....	c15 N71-18616	US-PATENT-APPL-SN-681000	.....	c34 N78-25350
US-PATENT-APPL-SN-665734	.....	c35 N78-18390	US-PATENT-APPL-SN-681001	.....	c74 N76-22993
US-PATENT-APPL-SN-666551	.....	c14 N71-23698	US-PATENT-APPL-SN-681017	.....	c44 N77-32583
US-PATENT-APPL-SN-666553	.....	c03 N71-11055	US-PATENT-APPL-SN-681096	.....	c44 N77-32582
US-PATENT-APPL-SN-666554	.....	c33 N71-16104	US-PATENT-APPL-SN-681687	.....	c03 N71-20273
US-PATENT-APPL-SN-666555	.....	c07 N71-24614	US-PATENT-APPL-SN-681692	.....	c08 N71-12506
US-PATENT-APPL-SN-666992	.....	c27 N77-30236	US-PATENT-APPL-SN-681693	.....	c09 N71-18598
US-PATENT-APPL-SN-667010	.....	c34 N77-27345	US-PATENT-APPL-SN-681942	.....	c18 N71-15688
US-PATENT-APPL-SN-667625	.....	c31 N71-15674	US-PATENT-APPL-SN-682416	.....	c34 N77-24423
US-PATENT-APPL-SN-667636	.....	c03 N71-20491	US-PATENT-APPL-SN-682435	.....	c27 N77-32308
US-PATENT-APPL-SN-667637	.....	c28 N71-14044	US-PATENT-APPL-SN-683507	.....	c15 N71-15609
US-PATENT-APPL-SN-667928	.....	c35 N77-30436	US-PATENT-APPL-SN-683606	.....	c09 N71-24717
US-PATENT-APPL-SN-667929	.....	c35 N79-14346	US-PATENT-APPL-SN-683612	.....	c01 N69-39981
US-PATENT-APPL-SN-667930	.....	c32 N77-28346	US-PATENT-APPL-SN-683613	.....	c15 N71-15610
US-PATENT-APPL-SN-668116	.....	c35 N76-16391	US-PATENT-APPL-SN-684083	.....	c09 N71-24596
US-PATENT-APPL-SN-668238	.....	c15 N71-15608	US-PATENT-APPL-SN-684171	.....	c26 N78-18183
US-PATENT-APPL-SN-668241	.....	c15 N71-17685	US-PATENT-APPL-SN-684178	.....	c15 N71-23812
US-PATENT-APPL-SN-668242	.....	c10 N71-27272	US-PATENT-APPL-SN-684209	.....	c10 N71-19418
US-PATENT-APPL-SN-668247	.....	c09 N71-20445	US-PATENT-APPL-SN-684807	.....	c75 N78-27913
US-PATENT-APPL-SN-668248	.....	c10 N71-26331	US-PATENT-APPL-SN-684810	.....	c33 N76-23483
US-PATENT-APPL-SN-668249	.....	c03 N71-20407	US-PATENT-APPL-SN-684894	.....	c17 N71-26773
US-PATENT-APPL-SN-668257	.....	c23 N71-16100	US-PATENT-APPL-SN-685027	.....	c25 N78-10225
US-PATENT-APPL-SN-668302	.....	c07 N71-12390	US-PATENT-APPL-SN-685463	.....	c15 N71-23254
US-PATENT-APPL-SN-668751	.....	c06 N71-11237	US-PATENT-APPL-SN-685473	.....	c17 N71-16044
US-PATENT-APPL-SN-668755	.....	c15 N71-17693	US-PATENT-APPL-SN-685497	.....	c07 N69-39974
US-PATENT-APPL-SN-668771	.....	c35 N78-32397	US-PATENT-APPL-SN-685748	.....	c07 N71-11282
US-PATENT-APPL-SN-668968	.....	c09 N71-12515	US-PATENT-APPL-SN-685750	.....	c27 N71-16392
US-PATENT-APPL-SN-668969	.....	c08 N71-19288	US-PATENT-APPL-SN-685764	.....	c14 N69-27459
US-PATENT-APPL-SN-668971	.....	c07 N78-33101	US-PATENT-APPL-SN-685766	.....	c15 N69-21924
US-PATENT-APPL-SN-669336	.....	c15 N71-17651	US-PATENT-APPL-SN-685787	.....	c14 N71-18625
US-PATENT-APPL-SN-669911	.....	c33 N78-17295	US-PATENT-APPL-SN-686209	.....	c15 N71-23809
US-PATENT-APPL-SN-669928	.....	c44 N77-22607	US-PATENT-APPL-SN-686248	.....	c14 N71-26774
US-PATENT-APPL-SN-670814	.....	c03 N71-19545	US-PATENT-APPL-SN-686296	.....	c18 N71-14014
US-PATENT-APPL-SN-670829	.....	c28 N72-23809	US-PATENT-APPL-SN-686331	.....	c38 N78-32447
US-PATENT-APPL-SN-672210	.....	c25 N78-10224	US-PATENT-APPL-SN-686344	.....	c15 N71-17688
US-PATENT-APPL-SN-672219	.....	c37 N76-20488	US-PATENT-APPL-SN-686449	.....	c34 N78-18355
US-PATENT-APPL-SN-672220	.....	c31 N78-17237	US-PATENT-APPL-SN-686796	.....	c15 N70-33311
US-PATENT-APPL-SN-672220	.....	c34 N79-20336	US-PATENT-APPL-SN-686933	.....	c14 N71-17588
US-PATENT-APPL-SN-672221	.....	c07 N78-27121	US-PATENT-APPL-SN-687251	.....	c52 N79-12694
US-PATENT-APPL-SN-672222	.....	c07 N78-25090	US-PATENT-APPL-SN-687822	.....	c44 N78-14625
US-PATENT-APPL-SN-672223	.....	c51 N78-27733	US-PATENT-APPL-SN-688742	.....	c15 N71-20441
US-PATENT-APPL-SN-672382	.....	c15 N71-23815	US-PATENT-APPL-SN-688743	.....	c15 N71-20393
US-PATENT-APPL-SN-672383	.....	c15 N71-24045	US-PATENT-APPL-SN-688805	.....	c14 N71-17701
US-PATENT-APPL-SN-672384	.....	c15 N71-27067	US-PATENT-APPL-SN-688807	.....	c03 N71-23239
US-PATENT-APPL-SN-672388	.....	c26 N72-17820	US-PATENT-APPL-SN-688852	.....	c44 N78-28594
US-PATENT-APPL-SN-672636	.....	c37 N79-11405	US-PATENT-APPL-SN-688854	.....	c54 N77-32722
US-PATENT-APPL-SN-672695	.....	c27 N78-17206	US-PATENT-APPL-SN-688856	.....	c54 N78-32720
US-PATENT-APPL-SN-672815	.....	c37 N77-23482	US-PATENT-APPL-SN-688868	.....	c15 N71-17686
US-PATENT-APPL-SN-673226	.....	c08 N71-12502	US-PATENT-APPL-SN-689455	.....	c54 N78-32546
US-PATENT-APPL-SN-673227	.....	c11 N71-24964	US-PATENT-APPL-SN-690163	.....	c14 N71-18465
US-PATENT-APPL-SN-673228	.....	c07 N71-19433	US-PATENT-APPL-SN-690172	.....	c11 N72-22245
US-PATENT-APPL-SN-673229	.....	c33 N71-15641	US-PATENT-APPL-SN-690815	.....	c32 N77-24328
US-PATENT-APPL-SN-674194	.....	c27 N78-17215	US-PATENT-APPL-SN-690816	.....	c37 N78-25426
US-PATENT-APPL-SN-674195	.....	c74 N78-17866	US-PATENT-APPL-SN-690997	.....	c16 N71-24828
US-PATENT-APPL-SN-674355	.....	c14 N71-20429	US-PATENT-APPL-SN-690998	.....	c30 N71-15990
US-PATENT-APPL-SN-674356	.....	c14 N71-23699	US-PATENT-APPL-SN-691046	.....	c36 N77-25501
US-PATENT-APPL-SN-674357	.....	c05 N71-12351	US-PATENT-APPL-SN-691266	.....	c35 N77-31465
US-PATENT-APPL-SN-674700	.....	c27 N77-31308	US-PATENT-APPL-SN-691647	.....	c52 N76-27839
US-PATENT-APPL-SN-675238	.....	c10 N71-26374	US-PATENT-APPL-SN-691735	.....	c09 N71-12520
US-PATENT-APPL-SN-675328	.....	c35 N78-15461	US-PATENT-APPL-SN-691736	.....	c18 N71-16210
US-PATENT-APPL-SN-675351	.....	c35 N78-10429	US-PATENT-APPL-SN-691737	.....	c07 N71-24742
US-PATENT-APPL-SN-676012	.....	c05 N71-11193	US-PATENT-APPL-SN-691738	.....	c08 N71-18694
US-PATENT-APPL-SN-676375	.....	c14 N71-18483	US-PATENT-APPL-SN-691739	.....	c32 N71-15974
US-PATENT-APPL-SN-676386	.....	c08 N71-12507	US-PATENT-APPL-SN-691909	.....	c05 N71-24606
US-PATENT-APPL-SN-676387	.....	c10 N71-25950	US-PATENT-APPL-SN-691936	.....	c26 N77-32279
US-PATENT-APPL-SN-676391	.....	c21 N71-11766	US-PATENT-APPL-SN-692284	.....	c27 N78-14164

NUMBER INDEX

US-PATENT-APPL-SN-692331	c10	N71-26326	US-PATENT-APPL-SN-710561	c09	N71-12517
US-PATENT-APPL-SN-692332	c07	N71-11281	US-PATENT-APPL-SN-710562	c31	N71-16085
US-PATENT-APPL-SN-692413	c25	N78-25148	US-PATENT-APPL-SN-710621	c06	N73-27086
US-PATENT-APPL-SN-692414	c32	N77-24331	US-PATENT-APPL-SN-710798	c25	N78-27232
US-PATENT-APPL-SN-692471	c09	N71-12518	US-PATENT-APPL-SN-710945	c33	N71-15568
US-PATENT-APPL-SN-693074	c44	N78-24609	US-PATENT-APPL-SN-710949	c12	N71-17631
US-PATENT-APPL-SN-693419	c31	N71-16222	US-PATENT-APPL-SN-711898	c18	N71-24934
US-PATENT-APPL-SN-693420	c31	N71-16080	US-PATENT-APPL-SN-711903	c18	N71-26772
US-PATENT-APPL-SN-694246	c15	N71-26673	US-PATENT-APPL-SN-711921	c18	N71-16105
US-PATENT-APPL-SN-694247	c09	N69-21927	US-PATENT-APPL-SN-711970	c09	N71-18830
US-PATENT-APPL-SN-694317	c12	N71-20436	US-PATENT-APPL-SN-711971	c09	N71-23598
US-PATENT-APPL-SN-694340	c11	N71-17600	US-PATENT-APPL-SN-711972	c06	N71-24607
US-PATENT-APPL-SN-694345	c10	N71-23669	US-PATENT-APPL-SN-712065	c08	N71-12503
US-PATENT-APPL-SN-694402	c09	N76-26224	US-PATENT-APPL-SN-712099	c23	N71-24868
US-PATENT-APPL-SN-694406	c35	N79-10389	US-PATENT-APPL-SN-712419	c35	N78-14364
US-PATENT-APPL-SN-694407	c27	N77-18265	US-PATENT-APPL-SN-712658	c07	N71-19773
US-PATENT-APPL-SN-694855	c33	N77-30365	US-PATENT-APPL-SN-712981	c31	N78-25256
US-PATENT-APPL-SN-695513	c07	N78-25089	US-PATENT-APPL-SN-713027	c37	N79-10419
US-PATENT-APPL-SN-695973	c05	N71-12343	US-PATENT-APPL-SN-713162	c06	N71-26754
US-PATENT-APPL-SN-696679	c38	N79-14398	US-PATENT-APPL-SN-713188	c08	N71-33110
US-PATENT-APPL-SN-696989	c27	N77-30237	US-PATENT-APPL-SN-713616	c06	N71-27363
US-PATENT-APPL-SN-697075	c15	N71-27184	US-PATENT-APPL-SN-714158	c33	N78-13320
US-PATENT-APPL-SN-697341	c09	N71-23188	US-PATENT-APPL-SN-714296	c14	N71-15604
US-PATENT-APPL-SN-698239	c33	N78-17294	US-PATENT-APPL-SN-714595	c15	N71-17822
US-PATENT-APPL-SN-698592	c15	N71-18580	US-PATENT-APPL-SN-715485	c74	N78-14889
US-PATENT-APPL-SN-698629	c09	N71-12516	US-PATENT-APPL-SN-715975	c06	N71-11240
US-PATENT-APPL-SN-698630	c09	N71-24841	US-PATENT-APPL-SN-716183	c15	N71-18132
US-PATENT-APPL-SN-698646	c24	N78-15180	US-PATENT-APPL-SN-716734	c15	N71-17628
US-PATENT-APPL-SN-699002	c32	N78-15323	US-PATENT-APPL-SN-716795	c14	N71-20435
US-PATENT-APPL-SN-699012	c33	N78-27326	US-PATENT-APPL-SN-716885	c74	N78-33913
US-PATENT-APPL-SN-700040	c18	N72-23581	US-PATENT-APPL-SN-717052	c14	N71-17626
US-PATENT-APPL-SN-700120	c15	N71-20440	US-PATENT-APPL-SN-717319	c44	N77-31601
US-PATENT-APPL-SN-700142	c21	N71-14159	US-PATENT-APPL-SN-717320	c44	N78-15560
US-PATENT-APPL-SN-700174	c02	N71-20570	US-PATENT-APPL-SN-717822	c09	N71-25866
US-PATENT-APPL-SN-700467	c52	N79-14749	US-PATENT-APPL-SN-718095	c28	N70-39899
US-PATENT-APPL-SN-700541	c10	N71-25139	US-PATENT-APPL-SN-718137	c44	N78-31527
US-PATENT-APPL-SN-700586	c15	N71-19570	US-PATENT-APPL-SN-718244	c05	N78-32086
US-PATENT-APPL-SN-700673	c39	N77-28511	US-PATENT-APPL-SN-718266	c74	N78-17867
US-PATENT-APPL-SN-700984	c11	N71-19494	US-PATENT-APPL-SN-718267	c26	N77-29260
US-PATENT-APPL-SN-700985	c15	N69-23190	US-PATENT-APPL-SN-718268	c44	N78-33526
US-PATENT-APPL-SN-700986	c12	N71-26387	US-PATENT-APPL-SN-718279	c15	N71-26312
US-PATENT-APPL-SN-700987	c09	N71-19610	US-PATENT-APPL-SN-718689	c14	N71-17655
US-PATENT-APPL-SN-701244	c05	N72-20096	US-PATENT-APPL-SN-718752	c03	N71-18698
US-PATENT-APPL-SN-701448	c52	N78-10686	US-PATENT-APPL-SN-718769	c14	N71-17662
US-PATENT-APPL-SN-701635	c12	N71-17578	US-PATENT-APPL-SN-719029	c14	N71-27186
US-PATENT-APPL-SN-701654	c03	N71-11049	US-PATENT-APPL-SN-719173	c28	N70-33331
US-PATENT-APPL-SN-701679	c02	N71-19287	US-PATENT-APPL-SN-719869	c31	N71-15676
US-PATENT-APPL-SN-701679	c07	N73-20174	US-PATENT-APPL-SN-719870	c07	N71-26292
US-PATENT-APPL-SN-701732	c24	N71-16095	US-PATENT-APPL-SN-720041	c05	N71-27234
US-PATENT-APPL-SN-701733	c10	N71-24844	US-PATENT-APPL-SN-720125	c09	N71-12539
US-PATENT-APPL-SN-701744	c21	N71-13958	US-PATENT-APPL-SN-720521	c44	N78-25530
US-PATENT-APPL-SN-701767	c07	N71-26101	US-PATENT-APPL-SN-720546	c18	N72-17532
US-PATENT-APPL-SN-702115	c71	N79-14871	US-PATENT-APPL-SN-721150	c37	N78-17383
US-PATENT-APPL-SN-702396	c31	N71-16345	US-PATENT-APPL-SN-721607	c18	N71-25881
US-PATENT-APPL-SN-702911	c15	N71-24875	US-PATENT-APPL-SN-723264	c24	N78-10214
US-PATENT-APPL-SN-702967	c06	N71-24739	US-PATENT-APPL-SN-723264	c24	N78-17149
US-PATENT-APPL-SN-703107	c37	N77-22479	US-PATENT-APPL-SN-723465	c15	N72-29488
US-PATENT-APPL-SN-704180	c36	N78-27402	US-PATENT-APPL-SN-723465	c37	N74-15125
US-PATENT-APPL-SN-704224	c18	N71-15469	US-PATENT-APPL-SN-723476	c05	N71-12341
US-PATENT-APPL-SN-704299	c10	N71-26577	US-PATENT-APPL-SN-723488	c09	N71-28691
US-PATENT-APPL-SN-704420	c05	N71-11202	US-PATENT-APPL-SN-723804	c09	N71-24806
US-PATENT-APPL-SN-704446	c10	N71-33407	US-PATENT-APPL-SN-723805	c10	N71-26339
US-PATENT-APPL-SN-704465	c07	N71-24741	US-PATENT-APPL-SN-723827	c10	N71-27137
US-PATENT-APPL-SN-704668	c10	N71-12554	US-PATENT-APPL-SN-724551	c15	N71-17696
US-PATENT-APPL-SN-706013	c33	N71-27862	US-PATENT-APPL-SN-724874	c76	N78-24950
US-PATENT-APPL-SN-706073	c76	N79-11920	US-PATENT-APPL-SN-725405	c15	N71-26134
US-PATENT-APPL-SN-706424	c27	N78-32256	US-PATENT-APPL-SN-725432	c07	N71-24622
US-PATENT-APPL-SN-706425	c33	N78-10376	US-PATENT-APPL-SN-725475	c31	N71-15643
US-PATENT-APPL-SN-706564	c14	N71-17587	US-PATENT-APPL-SN-725719	c15	N71-26243
US-PATENT-APPL-SN-707124	c44	N77-22606	US-PATENT-APPL-SN-725828	c06	N76-31229
US-PATENT-APPL-SN-707125	c39	N78-16387	US-PATENT-APPL-SN-726898	c12	N71-17579
US-PATENT-APPL-SN-707440	c06	N73-30102	US-PATENT-APPL-SN-727480	c14	N71-17658
US-PATENT-APPL-SN-707495	c11	N71-18773	US-PATENT-APPL-SN-728234	c03	N71-12255
US-PATENT-APPL-SN-708658	c33	N77-26385	US-PATENT-APPL-SN-728369	c52	N76-33835
US-PATENT-APPL-SN-708660	c34	N78-27357	US-PATENT-APPL-SN-729299	c03	N72-15986
US-PATENT-APPL-SN-708771	c26	N78-24333	US-PATENT-APPL-SN-730045	c32	N78-24391
US-PATENT-APPL-SN-708795	c37	N77-28487	US-PATENT-APPL-SN-730046	c35	N78-32396
US-PATENT-APPL-SN-708796	c36	N78-18410	US-PATENT-APPL-SN-730162	c09	N71-18599
US-PATENT-APPL-SN-708800	c54	N78-17676	US-PATENT-APPL-SN-730468	c25	N79-11152
US-PATENT-APPL-SN-708951	c27	N78-31232	US-PATENT-APPL-SN-730700	c07	N71-24583
US-PATENT-APPL-SN-709398	c06	N71-13461	US-PATENT-APPL-SN-730701	c12	N71-18615
US-PATENT-APPL-SN-709399	c16	N71-26154	US-PATENT-APPL-SN-730702	c33	N71-16356
US-PATENT-APPL-SN-709415	c44	N78-27515	US-PATENT-APPL-SN-730703	c10	N71-13537
US-PATENT-APPL-SN-709622	c33	N71-24858	US-PATENT-APPL-SN-730733	c28	N71-16224
US-PATENT-APPL-SN-709849	c52	N77-25772	US-PATENT-APPL-SN-730734	c15	N71-17654
US-PATENT-APPL-SN-710032	c54	N77-30749	US-PATENT-APPL-SN-730778	c32	N79-10264
US-PATENT-APPL-SN-710035	c44	N78-24608	US-PATENT-APPL-SN-730779	c35	N76-33470
US-PATENT-APPL-SN-710036	c44	N78-32539	US-PATENT-APPL-SN-730780	c05	N77-31132
US-PATENT-APPL-SN-710533	c02	N71-11043	US-PATENT-APPL-SN-731388	c15	N71-24835

NUMBER INDEX

US-PATENT-APPL-SN-732455	.....	c22	N71-28759	US-PATENT-APPL-SN-753974	.....	c16	N71-33410
US-PATENT-APPL-SN-732630	.....	c36	N78-14380	US-PATENT-APPL-SN-753976	.....	c54	N78-17675
US-PATENT-APPL-SN-732917	.....	c14	N71-17575	US-PATENT-APPL-SN-753977	.....	c74	N79-12890
US-PATENT-APPL-SN-732921	.....	c10	N71-26544	US-PATENT-APPL-SN-753978	.....	c54	N78-32721
US-PATENT-APPL-SN-732922	.....	c17	N71-28747	US-PATENT-APPL-SN-754019	.....	c09	N71-25999
US-PATENT-APPL-SN-733039	.....	c07	N72-12081	US-PATENT-APPL-SN-754020	.....	c12	N71-27332
US-PATENT-APPL-SN-733814	.....	c02	N77-22045	US-PATENT-APPL-SN-754055	.....	c07	N71-24624
US-PATENT-APPL-SN-733825	.....	c31	N79-11246	US-PATENT-APPL-SN-754066	.....	c39	N78-15512
US-PATENT-APPL-SN-734805	.....	c14	N70-34816	US-PATENT-APPL-SN-755310	.....	c25	N78-15210
US-PATENT-APPL-SN-734901	.....	c27	N78-17205	US-PATENT-APPL-SN-755323	.....	c74	N79-11865
US-PATENT-APPL-SN-734902	.....	c24	N78-14096	US-PATENT-APPL-SN-756260	.....	c23	N71-26722
US-PATENT-APPL-SN-735911	.....	c14	N70-41946	US-PATENT-APPL-SN-756266	.....	c15	N71-26145
US-PATENT-APPL-SN-736286	.....	c32	N79-11265	US-PATENT-APPL-SN-756381	.....	c06	N71-25929
US-PATENT-APPL-SN-736848	.....	c23	N71-16212	US-PATENT-APPL-SN-756511	.....	c09	N71-27016
US-PATENT-APPL-SN-736909	.....	c37	N79-11404	US-PATENT-APPL-SN-756834	.....	c15	N72-21866
US-PATENT-APPL-SN-736910	.....	c27	N78-32260	US-PATENT-APPL-SN-757017	.....	c35	N77-21393
US-PATENT-APPL-SN-737974	.....	c33	N78-18308	US-PATENT-APPL-SN-757625	.....	c09	N71-26701
US-PATENT-APPL-SN-737975	.....	c32	N77-12248	US-PATENT-APPL-SN-757857	.....	c10	N71-25900
US-PATENT-APPL-SN-738119	.....	c18	N71-15545	US-PATENT-APPL-SN-757861	.....	c05	N71-11194
US-PATENT-APPL-SN-738218	.....	c37	N78-27425	US-PATENT-APPL-SN-757875	.....	c09	N71-24805
US-PATENT-APPL-SN-738219	.....	c36	N77-10517	US-PATENT-APPL-SN-758082	.....	c15	N71-17805
US-PATENT-APPL-SN-738314	.....	c12	N71-17573	US-PATENT-APPL-SN-758390	.....	c28	N71-26642
US-PATENT-APPL-SN-738315	.....	c14	N71-27334	US-PATENT-APPL-SN-758540	.....	c28	N73-27699
US-PATENT-APPL-SN-738315	.....	c14	N72-31446	US-PATENT-APPL-SN-758721	.....	c52	N79-18580
US-PATENT-APPL-SN-739072	.....	c33	N75-27251	US-PATENT-APPL-SN-758942	.....	c27	N71-14090
US-PATENT-APPL-SN-739391	.....	c09	N72-17156	US-PATENT-APPL-SN-759220	.....	c27	N78-17214
US-PATENT-APPL-SN-739908	.....	c15	N78-25119	US-PATENT-APPL-SN-759256	.....	c07	N71-27233
US-PATENT-APPL-SN-739909	.....	c37	N78-24545	US-PATENT-APPL-SN-759457	.....	c33	N71-16357
US-PATENT-APPL-SN-739914	.....	c33	N78-10375	US-PATENT-APPL-SN-759460	.....	c09	N71-24597
US-PATENT-APPL-SN-739915	.....	c37	N78-24544	US-PATENT-APPL-SN-759665	.....	c14	N71-18481
US-PATENT-APPL-SN-739927	.....	c32	N71-16103	US-PATENT-APPL-SN-759965	.....	c52	N77-15619
US-PATENT-APPL-SN-740153	.....	c28	N79-11231	US-PATENT-APPL-SN-760057	.....	c44	N79-14527
US-PATENT-APPL-SN-740155	.....	c74	N78-27904	US-PATENT-APPL-SN-760114	.....	c28	N72-11709
US-PATENT-APPL-SN-740156	.....	c71	N78-14867	US-PATENT-APPL-SN-760389	.....	c09	N71-24618
US-PATENT-APPL-SN-740457	.....	c35	N78-32395	US-PATENT-APPL-SN-760771	.....	c44	N79-14528
US-PATENT-APPL-SN-741461	.....	c12	N71-18603	US-PATENT-APPL-SN-760809	.....	c24	N78-24290
US-PATENT-APPL-SN-741749	.....	c52	N79-14751	US-PATENT-APPL-SN-760810	.....	c26	N78-32229
US-PATENT-APPL-SN-741824	.....	c07	N71-12389	US-PATENT-APPL-SN-760819	.....	c14	N70-34820
US-PATENT-APPL-SN-742034	.....	c33	N78-10377	US-PATENT-APPL-SN-760927	.....	c26	N71-25490
US-PATENT-APPL-SN-742035	.....	c05	N77-15027	US-PATENT-APPL-SN-760928	.....	c15	N71-28582
US-PATENT-APPL-SN-742816	.....	c14	N71-17656	US-PATENT-APPL-SN-761007	.....	c18	N71-26155
US-PATENT-APPL-SN-743249	.....	c35	N77-32456	US-PATENT-APPL-SN-761404	.....	c09	N71-12526
US-PATENT-APPL-SN-743429	.....	c07	N71-11285	US-PATENT-APPL-SN-762362	.....	c44	N77-20565
US-PATENT-APPL-SN-743525	.....	c07	N71-28430	US-PATENT-APPL-SN-762363	.....	c44	N77-20566
US-PATENT-APPL-SN-744477	.....	c33	N78-25319	US-PATENT-APPL-SN-762363	.....	c44	N79-14529
US-PATENT-APPL-SN-744522	.....	c33	N77-21314	US-PATENT-APPL-SN-762438	.....	c12	N71-17569
US-PATENT-APPL-SN-744542	.....	c34	N77-12332	US-PATENT-APPL-SN-762935	.....	c14	N71-29041
US-PATENT-APPL-SN-744573	.....	c44	N78-25531	US-PATENT-APPL-SN-762936	.....	c31	N69-27499
US-PATENT-APPL-SN-744574	.....	c25	N78-14104	US-PATENT-APPL-SN-762956	.....	c14	N71-26627
US-PATENT-APPL-SN-744577	.....	c35	N79-10391	US-PATENT-APPL-SN-762957	.....	c08	N71-27210
US-PATENT-APPL-SN-744910	.....	c15	N71-17649	US-PATENT-APPL-SN-763040	.....	c14	N72-28438
US-PATENT-APPL-SN-745337	.....	c28	N72-20758	US-PATENT-APPL-SN-763355	.....	c06	N71-28620
US-PATENT-APPL-SN-745384	.....	c25	N79-11151	US-PATENT-APPL-SN-763684	.....	c15	N72-16329
US-PATENT-APPL-SN-745766	.....	c37	N79-11403	US-PATENT-APPL-SN-763685	.....	c15	N71-24910
US-PATENT-APPL-SN-745852	.....	c12	N71-17661	US-PATENT-APPL-SN-763705	.....	c09	N71-18720
US-PATENT-APPL-SN-746269	.....	c44	N78-25528	US-PATENT-APPL-SN-763706	.....	c15	N71-28896
US-PATENT-APPL-SN-746578	.....	c09	N77-12070	US-PATENT-APPL-SN-763729	.....	c12	N71-26546
US-PATENT-APPL-SN-746579	.....	c33	N77-13338	US-PATENT-APPL-SN-763743	.....	c14	N72-21409
US-PATENT-APPL-SN-746580	.....	c34	N78-17335	US-PATENT-APPL-SN-763744	.....	c10	N72-27246
US-PATENT-APPL-SN-747674	.....	c27	N77-14262	US-PATENT-APPL-SN-763753	.....	c43	N78-14452
US-PATENT-APPL-SN-747675	.....	c37	N78-31426	US-PATENT-APPL-SN-763868	.....	c15	N71-24679
US-PATENT-APPL-SN-749121	.....	c07	N72-11149	US-PATENT-APPL-SN-763869	.....	c17	N71-16393
US-PATENT-APPL-SN-749188	.....	c10	N71-19421	US-PATENT-APPL-SN-764245	.....	c24	N77-32249
US-PATENT-APPL-SN-749189	.....	c15	N71-24897	US-PATENT-APPL-SN-764245	.....	c24	N79-17916
US-PATENT-APPL-SN-749181	.....	c09	N71-24803	US-PATENT-APPL-SN-764252	.....	c14	N71-25901
US-PATENT-APPL-SN-749320	.....	c14	N72-22443	US-PATENT-APPL-SN-764470	.....	c16	N71-28554
US-PATENT-APPL-SN-749420	.....	c04	N77-12031	US-PATENT-APPL-SN-764482	.....	c10	N71-19468
US-PATENT-APPL-SN-749548	.....	c10	N71-33129	US-PATENT-APPL-SN-764823	.....	c33	N78-17296
US-PATENT-APPL-SN-750031	.....	c05	N73-32012	US-PATENT-APPL-SN-765123	.....	c31	N71-15687
US-PATENT-APPL-SN-750235	.....	c25	N75-14844	US-PATENT-APPL-SN-765138	.....	c44	N79-10513
US-PATENT-APPL-SN-750655	.....	c74	N78-32854	US-PATENT-APPL-SN-765139	.....	c44	N78-31526
US-PATENT-APPL-SN-750786	.....	c07	N71-27341	US-PATENT-APPL-SN-765139	.....	c44	N79-11471
US-PATENT-APPL-SN-750787	.....	c10	N71-27126	US-PATENT-APPL-SN-765165	.....	c32	N79-11264
US-PATENT-APPL-SN-750792	.....	c37	N79-11402	US-PATENT-APPL-SN-765167	.....	c32	N79-10263
US-PATENT-APPL-SN-750796	.....	c32	N77-15233	US-PATENT-APPL-SN-765264	.....	c02	N71-29128
US-PATENT-APPL-SN-750798	.....	c85	N79-17747	US-PATENT-APPL-SN-765738	.....	c03	N71-11057
US-PATENT-APPL-SN-751061	.....	c18	N71-29040	US-PATENT-APPL-SN-766170	.....	c07	N71-24625
US-PATENT-APPL-SN-751198	.....	c03	N71-24718	US-PATENT-APPL-SN-766244	.....	c15	N71-26721
US-PATENT-APPL-SN-751215	.....	c22	N72-20597	US-PATENT-APPL-SN-766245	.....	c14	N71-27215
US-PATENT-APPL-SN-751266	.....	c15	N71-33518	US-PATENT-APPL-SN-766697	.....	c09	N71-33519
US-PATENT-APPL-SN-752729	.....	c09	N71-26787	US-PATENT-APPL-SN-766999	.....	c35	N77-19390
US-PATENT-APPL-SN-752748	.....	c35	N77-28470	US-PATENT-APPL-SN-767741	.....	c09	N72-27228
US-PATENT-APPL-SN-752748	.....	c35	N78-25391	US-PATENT-APPL-SN-767911	.....	c09	N78-31129
US-PATENT-APPL-SN-752748	.....	c15	N71-29032	US-PATENT-APPL-SN-767912	.....	c27	N79-14214
US-PATENT-APPL-SN-752947	.....	c31	N71-15689	US-PATENT-APPL-SN-768336	.....	c15	N71-17648
US-PATENT-APPL-SN-753452	.....	c07	N79-14096	US-PATENT-APPL-SN-768470	.....	c09	N71-28421
US-PATENT-APPL-SN-753964	.....	c24	N78-27180	US-PATENT-APPL-SN-768473	.....	c14	N71-17657
US-PATENT-APPL-SN-753965	.....	c54	N78-31735	US-PATENT-APPL-SN-768662	.....	c07	N73-25160
US-PATENT-APPL-SN-753971	.....	c07	N77-15036	US-PATENT-APPL-SN-768795	.....	c33	N79-10339

NUMBER INDEX

US-PATENT-APPL-SN-768942	c46	N74-23068	US-PATENT-APPL-SN-785595	c10	N71-24861
US-PATENT-APPL-SN-769148	c52	N79-10724	US-PATENT-APPL-SN-785611	c15	N71-24600
US-PATENT-APPL-SN-769149	c33	N78-32339	US-PATENT-APPL-SN-785613	c05	N72-25119
US-PATENT-APPL-SN-769592	c15	N72-16330	US-PATENT-APPL-SN-785615	c05	N72-20098
US-PATENT-APPL-SN-769665	c15	N72-11387	US-PATENT-APPL-SN-785620	c21	N71-27324
US-PATENT-APPL-SN-769788	c07	N71-11300	US-PATENT-APPL-SN-785710	c05	N71-24730
US-PATENT-APPL-SN-770203	c05	N71-11195	US-PATENT-APPL-SN-785780	c18	N71-28729
US-PATENT-APPL-SN-770209	c08	N71-27057	US-PATENT-APPL-SN-786322	c32	N79-20296
US-PATENT-APPL-SN-770371	c15	N71-24599	US-PATENT-APPL-SN-786913	c27	N79-12221
US-PATENT-APPL-SN-770398	c06	N71-27254	US-PATENT-APPL-SN-787393	c23	N71-26206
US-PATENT-APPL-SN-770398	c06	N72-27144	US-PATENT-APPL-SN-787410	c15	N71-19213
US-PATENT-APPL-SN-770417	c06	N73-33076	US-PATENT-APPL-SN-787846	c23	N71-33229
US-PATENT-APPL-SN-770425	c06	N72-20121	US-PATENT-APPL-SN-787906	c03	N71-26084
US-PATENT-APPL-SN-770869	c44	N78-25527	US-PATENT-APPL-SN-787911	c03	N71-28579
US-PATENT-APPL-SN-770869	c44	N79-11472	US-PATENT-APPL-SN-788045	c34	N77-22423
US-PATENT-APPL-SN-771216	c14	N72-17329	US-PATENT-APPL-SN-788075	c35	N78-24515
US-PATENT-APPL-SN-771523	c10	N71-18772	US-PATENT-APPL-SN-788856	c37	N77-25535
US-PATENT-APPL-SN-771530	c09	N72-12136	US-PATENT-APPL-SN-789043	c10	N71-26531
US-PATENT-APPL-SN-771759	c09	N71-29008	US-PATENT-APPL-SN-789044	c14	N72-20381
US-PATENT-APPL-SN-771760	c10	N71-25917	US-PATENT-APPL-SN-789045	c15	N72-22489
US-PATENT-APPL-SN-771803	c07	N71-12391	US-PATENT-APPL-SN-789278	c15	N71-24694
US-PATENT-APPL-SN-771937	c10	N71-24862	US-PATENT-APPL-SN-789903	c07	N71-28429
US-PATENT-APPL-SN-772006	c17	N71-33408	US-PATENT-APPL-SN-790420	c09	N71-24595
US-PATENT-APPL-SN-772165	c74	N79-13855	US-PATENT-APPL-SN-790637	c44	N78-25529
US-PATENT-APPL-SN-772168	c37	N79-20377	US-PATENT-APPL-SN-791267	c23	N72-17747
US-PATENT-APPL-SN-773029	c09	N71-24893	US-PATENT-APPL-SN-791268	c33	N72-17997
US-PATENT-APPL-SN-773072	c10	N72-28241	US-PATENT-APPL-SN-791288	c28	N71-25213
US-PATENT-APPL-SN-773530	c25	N75-29192	US-PATENT-APPL-SN-791364	c14	N72-17328
US-PATENT-APPL-SN-774151	c15	N71-17692	US-PATENT-APPL-SN-791693	c05	N71-11203
US-PATENT-APPL-SN-774265	c10	N71-27365	US-PATENT-APPL-SN-791888	c23	N71-24725
US-PATENT-APPL-SN-774266	c15	N71-26185	US-PATENT-APPL-SN-792067	c24	N78-17150
US-PATENT-APPL-SN-774384	c32	N79-10262	US-PATENT-APPL-SN-792068	c51	N79-10693
US-PATENT-APPL-SN-774691	c10	N72-31273	US-PATENT-APPL-SN-792069	c37	N79-10418
US-PATENT-APPL-SN-774733	c14	N72-24477	US-PATENT-APPL-SN-792623	c14	N72-23457
US-PATENT-APPL-SN-775072	c16	N71-24831	US-PATENT-APPL-SN-793657	c17	N72-28536
US-PATENT-APPL-SN-775239	c37	N79-14382	US-PATENT-APPL-SN-793670	c37	N77-25536
US-PATENT-APPL-SN-775870	c09	N71-24800	US-PATENT-APPL-SN-793770	c25	N71-15562
US-PATENT-APPL-SN-775870	c09	N72-22196	US-PATENT-APPL-SN-793771	c14	N72-22440
US-PATENT-APPL-SN-775877	c02	N71-11039	US-PATENT-APPL-SN-793772	c10	N71-18722
US-PATENT-APPL-SN-775966	c02	N71-11037	US-PATENT-APPL-SN-793823	c09	N71-33109
US-PATENT-APPL-SN-776029	c07	N79-10057	US-PATENT-APPL-SN-794530	c15	N72-11386
US-PATENT-APPL-SN-776146	c44	N79-17313	US-PATENT-APPL-SN-794968	c15	N71-27146
US-PATENT-APPL-SN-776185	c03	N72-22041	US-PATENT-APPL-SN-795182	c07	N71-24840
US-PATENT-APPL-SN-777164	c15	N71-27214	US-PATENT-APPL-SN-795217	c37	N71-25351
US-PATENT-APPL-SN-777765	c15	N71-29018	US-PATENT-APPL-SN-796256	c52	N77-23743
US-PATENT-APPL-SN-777765	c14	N73-28487	US-PATENT-APPL-SN-796258	c52	N77-26796
US-PATENT-APPL-SN-777766	c31	N71-16221	US-PATENT-APPL-SN-796263	c23	N77-32244
US-PATENT-APPL-SN-777818	c09	N71-27364	US-PATENT-APPL-SN-796358	c05	N72-11085
US-PATENT-APPL-SN-777983	c32	N77-24340	US-PATENT-APPL-SN-796360	c15	N71-24696
US-PATENT-APPL-SN-778195	c24	N79-16915	US-PATENT-APPL-SN-796370	c10	N71-27366
US-PATENT-APPL-SN-779024	c10	N71-27271	US-PATENT-APPL-SN-796405	c14	N71-27185
US-PATENT-APPL-SN-779025	c09	N72-23171	US-PATENT-APPL-SN-796685	c26	N72-28762
US-PATENT-APPL-SN-779160	c14	N72-16282	US-PATENT-APPL-SN-796690	c07	N72-21119
US-PATENT-APPL-SN-779169	c09	N71-28618	US-PATENT-APPL-SN-796691	c10	N71-26334
US-PATENT-APPL-SN-779415	c60	N79-20751	US-PATENT-APPL-SN-797056	c15	N71-25975
US-PATENT-APPL-SN-779428	c34	N78-25351	US-PATENT-APPL-SN-797057	c15	N70-22192
US-PATENT-APPL-SN-779429	c08	N79-14108	US-PATENT-APPL-SN-797058	c05	N71-24738
US-PATENT-APPL-SN-779847	c15	N71-27091	US-PATENT-APPL-SN-797059	c15	N71-28465
US-PATENT-APPL-SN-779871	c33	N79-20314	US-PATENT-APPL-SN-797210	c28	N78-31255
US-PATENT-APPL-SN-779883	c27	N79-18052	US-PATENT-APPL-SN-797217	c24	N77-24200
US-PATENT-APPL-SN-780064	c15	N71-27372	US-PATENT-APPL-SN-797219	c03	N71-33409
US-PATENT-APPL-SN-780065	c12	N71-28741	US-PATENT-APPL-SN-797794	c07	N71-12396
US-PATENT-APPL-SN-780568	c06	N77-20098	US-PATENT-APPL-SN-797795	c07	N71-27191
US-PATENT-APPL-SN-780569	c54	N78-31736	US-PATENT-APPL-SN-797796	c28	N71-14058
US-PATENT-APPL-SN-780728	c32	N78-31321	US-PATENT-APPL-SN-798277	c23	N71-26654
US-PATENT-APPL-SN-780873	c35	N77-20410	US-PATENT-APPL-SN-798976	c52	N77-27694
US-PATENT-APPL-SN-780874	c35	N78-28411	US-PATENT-APPL-SN-799013	c09	N71-28468
US-PATENT-APPL-SN-780930	c54	N77-21847	US-PATENT-APPL-SN-799023	c37	N79-10421
US-PATENT-APPL-SN-782462	c33	N79-17133	US-PATENT-APPL-SN-799024	c24	N78-17149
US-PATENT-APPL-SN-782463	c72	N79-13826	US-PATENT-APPL-SN-799025	c32	N77-24339
US-PATENT-APPL-SN-782464	c32	N79-14267	US-PATENT-APPL-SN-799026	c44	N79-11468
US-PATENT-APPL-SN-782480	c33	N78-32340	US-PATENT-APPL-SN-799353	c09	N71-27232
US-PATENT-APPL-SN-782481	c44	N78-32542	US-PATENT-APPL-SN-799832	c33	N79-15245
US-PATENT-APPL-SN-782482	c33	N79-11315	US-PATENT-APPL-SN-800204	c06	N72-17094
US-PATENT-APPL-SN-782544	c14	N71-27325	US-PATENT-APPL-SN-800973	c16	N71-24832
US-PATENT-APPL-SN-782693	c33	N79-10337	US-PATENT-APPL-SN-801290	c37	N79-18318
US-PATENT-APPL-SN-782955	c07	N71-33108	US-PATENT-APPL-SN-801312	c16	N71-15565
US-PATENT-APPL-SN-782956	c10	N71-25865	US-PATENT-APPL-SN-801336	c02	N71-13422
US-PATENT-APPL-SN-783374	c15	N71-27147	US-PATENT-APPL-SN-801432	c33	N78-32341
US-PATENT-APPL-SN-783375	c07	N71-24621	US-PATENT-APPL-SN-801452	c44	N79-11471
US-PATENT-APPL-SN-783377	c05	N71-28619	US-PATENT-APPL-SN-801660	c14	N71-26672
US-PATENT-APPL-SN-783378	c07	N71-19436	US-PATENT-APPL-SN-802812	c10	N72-22235
US-PATENT-APPL-SN-783379	c15	N71-17653	US-PATENT-APPL-SN-802813	c15	N72-22487
US-PATENT-APPL-SN-784055	c15	N72-11390	US-PATENT-APPL-SN-802816	c31	N71-16346
US-PATENT-APPL-SN-784521	c14	N71-15620	US-PATENT-APPL-SN-802818	c07	N71-29065
US-PATENT-APPL-SN-784544	c15	N72-12408	US-PATENT-APPL-SN-802820	c10	N71-13545
US-PATENT-APPL-SN-785078	c03	N72-27053	US-PATENT-APPL-SN-802948	c31	N71-33160
US-PATENT-APPL-SN-785257	c44	N79-14526	US-PATENT-APPL-SN-802972	c09	N71-26678
US-PATENT-APPL-SN-785546	c10	N71-25882	US-PATENT-APPL-SN-803822	c26	N77-24254

NUMBER INDEX

US-PATENT-APPL-SN-803823	.....	c44	N79-11467	US-PATENT-APPL-SN-827464	.....	c44	N79-20496
US-PATENT-APPL-SN-803823	.....	c44	N79-18444	US-PATENT-APPL-SN-827579	.....	c15	N71-24984
US-PATENT-APPL-SN-804035	.....	c35	N79-14348	US-PATENT-APPL-SN-827597	.....	c26	N79-33482
US-PATENT-APPL-SN-804172	.....	c28	N71-26781	US-PATENT-APPL-SN-828262	.....	c37	N79-14383
US-PATENT-APPL-SN-805298	.....	c10	N71-25899	US-PATENT-APPL-SN-828909	.....	c28	N71-27094
US-PATENT-APPL-SN-805405	.....	c14	N71-27323	US-PATENT-APPL-SN-828920	.....	c35	N74-22095
US-PATENT-APPL-SN-805406	.....	c07	N71-24613	US-PATENT-APPL-SN-828921	.....	c09	N71-27001
US-PATENT-APPL-SN-805549	.....	c35	N79-16246	US-PATENT-APPL-SN-828983	.....	c03	N71-24719
US-PATENT-APPL-SN-806149	.....	c27	N71-16223	US-PATENT-APPL-SN-828984	.....	c08	N71-29033
US-PATENT-APPL-SN-806226	.....	c14	N71-27407	US-PATENT-APPL-SN-829315	.....	c34	N79-20336
US-PATENT-APPL-SN-806440	.....	c51	N79-10694	US-PATENT-APPL-SN-829316	.....	c18	N79-11108
US-PATENT-APPL-SN-807597	.....	c52	N79-19678	US-PATENT-APPL-SN-829317	.....	c52	N77-30737
US-PATENT-APPL-SN-807703	.....	c37	N78-27424	US-PATENT-APPL-SN-829318	.....	c52	N77-30736
US-PATENT-APPL-SN-807762	.....	c27	N78-31233	US-PATENT-APPL-SN-829319	.....	c34	N77-32435
US-PATENT-APPL-SN-808192	.....	c15	N71-27432	US-PATENT-APPL-SN-829321	.....	c33	N77-31407
US-PATENT-APPL-SN-808193	.....	c31	N71-26537	US-PATENT-APPL-SN-829390	.....	c44	N79-11469
US-PATENT-APPL-SN-808462	.....	c10	N71-27136	US-PATENT-APPL-SN-829825	.....	c03	N71-24681
US-PATENT-APPL-SN-808510	.....	c33	N78-32338	US-PATENT-APPL-SN-830272	.....	c60	N77-31800
US-PATENT-APPL-SN-808576	.....	c15	N71-27754	US-PATENT-APPL-SN-830366	.....	c16	N72-13437
US-PATENT-APPL-SN-808577	.....	c32	N71-25360	US-PATENT-APPL-SN-830382	.....	c44	N77-31611
US-PATENT-APPL-SN-808822	.....	c14	N73-16483	US-PATENT-APPL-SN-830562	.....	c46	N79-20556
US-PATENT-APPL-SN-809822	.....	c28	N71-27585	US-PATENT-APPL-SN-830715	.....	c15	N71-24903
US-PATENT-APPL-SN-809890	.....	c44	N77-28585	US-PATENT-APPL-SN-830846	.....	c46	N79-20555
US-PATENT-APPL-SN-809890	.....	c44	N79-17314	US-PATENT-APPL-SN-830978	.....	c28	N71-26173
US-PATENT-APPL-SN-810575	.....	c15	N71-27169	US-PATENT-APPL-SN-831118	.....	c08	N72-11172
US-PATENT-APPL-SN-810576	.....	c15	N73-12492	US-PATENT-APPL-SN-831631	.....	c32	N79-20297
US-PATENT-APPL-SN-810579	.....	c09	N72-22203	US-PATENT-APPL-SN-831632	.....	c25	N77-31260
US-PATENT-APPL-SN-810579	.....	c33	N74-22864	US-PATENT-APPL-SN-831633	.....	c05	N77-31130
US-PATENT-APPL-SN-810815	.....	c06	N72-22107	US-PATENT-APPL-SN-831634	.....	c05	N79-12061
US-PATENT-APPL-SN-811037	.....	c14	N71-26137	US-PATENT-APPL-SN-832603	.....	c09	N72-22199
US-PATENT-APPL-SN-811038	.....	c14	N72-20380	US-PATENT-APPL-SN-833049	.....	c06	N72-21094
US-PATENT-APPL-SN-811401	.....	c39	N77-27432	US-PATENT-APPL-SN-833636	.....	c27	N77-32313
US-PATENT-APPL-SN-811509	.....	c02	N70-33332	US-PATENT-APPL-SN-833637	.....	c33	N77-32402
US-PATENT-APPL-SN-811542	.....	c21	N71-28948	US-PATENT-APPL-SN-835058	.....	c21	N72-22619
US-PATENT-APPL-SN-811815	.....	c44	N78-31525	US-PATENT-APPL-SN-835059	.....	c09	N71-26133
US-PATENT-APPL-SN-811892	.....	c14	N71-27090	US-PATENT-APPL-SN-835060	.....	c02	N71-26110
US-PATENT-APPL-SN-812447	.....	c71	N79-20827	US-PATENT-APPL-SN-835146	.....	c15	N70-33264
US-PATENT-APPL-SN-812998	.....	c28	N72-22769	US-PATENT-APPL-SN-835152	.....	c28	N70-38199
US-PATENT-APPL-SN-812999	.....	c05	N71-12345	US-PATENT-APPL-SN-835153	.....	c31	N71-17680
US-PATENT-APPL-SN-813338	.....	c18	N72-22566	US-PATENT-APPL-SN-835544	.....	c33	N79-14305
US-PATENT-APPL-SN-813488	.....	c15	N71-28467	US-PATENT-APPL-SN-835628	.....	c35	N79-14347
US-PATENT-APPL-SN-813494	.....	c08	N72-11171	US-PATENT-APPL-SN-836280	.....	c14	N73-14428
US-PATENT-APPL-SN-814004	.....	c33	N79-18193	US-PATENT-APPL-SN-836280	.....	c35	N75-25122
US-PATENT-APPL-SN-814005	.....	c76	N79-14906	US-PATENT-APPL-SN-836367	.....	c09	N71-24804
US-PATENT-APPL-SN-814212	.....	c14	N72-17326	US-PATENT-APPL-SN-837259	.....	c54	N77-32723
US-PATENT-APPL-SN-814378	.....	c25	N79-10162	US-PATENT-APPL-SN-837260	.....	c37	N78-27423
US-PATENT-APPL-SN-814384	.....	c52	N78-25762	US-PATENT-APPL-SN-837377	.....	c15	N71-26148
US-PATENT-APPL-SN-815366	.....	c14	N71-28994	US-PATENT-APPL-SN-837378	.....	c15	N71-24865
US-PATENT-APPL-SN-815367	.....	c14	N71-28863	US-PATENT-APPL-SN-837794	.....	c72	N78-19907
US-PATENT-APPL-SN-815760	.....	c15	N71-27068	US-PATENT-APPL-SN-837795	.....	c36	N78-10445
US-PATENT-APPL-SN-816733	.....	c15	N71-27084	US-PATENT-APPL-SN-837796	.....	c35	N79-14345
US-PATENT-APPL-SN-816988	.....	c14	N71-26199	US-PATENT-APPL-SN-837825	.....	c15	N71-27006
US-PATENT-APPL-SN-817413	.....	c33	N79-12321	US-PATENT-APPL-SN-837830	.....	c02	N71-27088
US-PATENT-APPL-SN-817415	.....	c74	N79-20857	US-PATENT-APPL-SN-838278	.....	c60	N74-20836
US-PATENT-APPL-SN-817481	.....	c09	N72-11225	US-PATENT-APPL-SN-838336	.....	c44	N79-11470
US-PATENT-APPL-SN-817482	.....	c10	N71-27338	US-PATENT-APPL-SN-838337	.....	c31	N79-17029
US-PATENT-APPL-SN-817569	.....	c06	N69-31244	US-PATENT-APPL-SN-838630	.....	c14	N71-28993
US-PATENT-APPL-SN-818349	.....	c21	N71-19212	US-PATENT-APPL-SN-839934	.....	c07	N72-20140
US-PATENT-APPL-SN-818916	.....	c05	N79-17847	US-PATENT-APPL-SN-839935	.....	c15	N71-24895
US-PATENT-APPL-SN-818917	.....	c32	N79-13214	US-PATENT-APPL-SN-839941	.....	c07	N71-26181
US-PATENT-APPL-SN-819599	.....	c15	N71-19214	US-PATENT-APPL-SN-839963	.....	c27	N78-17218
US-PATENT-APPL-SN-819898	.....	c30	N72-17873	US-PATENT-APPL-SN-839994	.....	c28	N71-28915
US-PATENT-APPL-SN-820453	.....	c03	N72-24037	US-PATENT-APPL-SN-840176	.....	c28	N71-27095
US-PATENT-APPL-SN-820498	.....	c89	N79-10969	US-PATENT-APPL-SN-840308	.....	c07	N71-33613
US-PATENT-APPL-SN-820499	.....	c76	N77-30984	US-PATENT-APPL-SN-840359	.....	c23	N71-29125
US-PATENT-APPL-SN-820963	.....	c07	N71-19854	US-PATENT-APPL-SN-840870	.....	c15	N71-26189
US-PATENT-APPL-SN-820964	.....	c15	N71-28740	US-PATENT-APPL-SN-840983	.....	c05	N70-33285
US-PATENT-APPL-SN-820965	.....	c09	N71-13486	US-PATENT-APPL-SN-841278	.....	c33	N77-21316
US-PATENT-APPL-SN-821586	.....	c26	N71-14354	US-PATENT-APPL-SN-841845	.....	c14	N73-32317
US-PATENT-APPL-SN-821681	.....	c35	N78-27384	US-PATENT-APPL-SN-842170	.....	c11	N70-33278
US-PATENT-APPL-SN-822039	.....	c06	N72-25109	US-PATENT-APPL-SN-842171	.....	c11	N70-33329
US-PATENT-APPL-SN-822088	.....	c15	N71-27135	US-PATENT-APPL-SN-843022	.....	c11	N70-33287
US-PATENT-APPL-SN-822089	.....	c23	N72-23695	US-PATENT-APPL-SN-843032	.....	c28	N70-41818
US-PATENT-APPL-SN-822090	.....	c16	N71-27183	US-PATENT-APPL-SN-843251	.....	c03	N72-11062
US-PATENT-APPL-SN-822518	.....	c09	N71-13522	US-PATENT-APPL-SN-843308	.....	c32	N79-14268
US-PATENT-APPL-SN-822519	.....	c14	N71-28992	US-PATENT-APPL-SN-844225	.....	c05	N72-25120
US-PATENT-APPL-SN-822534	.....	c09	N72-11224	US-PATENT-APPL-SN-844243	.....	c37	N75-29426
US-PATENT-APPL-SN-823061	.....	c44	N77-30613	US-PATENT-APPL-SN-844315	.....	c35	N77-21392
US-PATENT-APPL-SN-823566	.....	c74	N79-14891	US-PATENT-APPL-SN-844344	.....	c24	N79-14156
US-PATENT-APPL-SN-824024	.....	c44	N79-18443	US-PATENT-APPL-SN-844346	.....	c44	N79-11472
US-PATENT-APPL-SN-824042	.....	c23	N71-29123	US-PATENT-APPL-SN-844355	.....	c03	N72-26031
US-PATENT-APPL-SN-824628	.....	c34	N78-17337	US-PATENT-APPL-SN-845365	.....	c09	N71-13518
US-PATENT-APPL-SN-824755	.....	c09	N70-33182	US-PATENT-APPL-SN-845584	.....	c27	N73-22710
US-PATENT-APPL-SN-825253	.....	c16	N69-31343	US-PATENT-APPL-SN-845807	.....	c15	N72-11391
US-PATENT-APPL-SN-825258	.....	c26	N72-21701	US-PATENT-APPL-SN-845971	.....	c11	N71-28629
US-PATENT-APPL-SN-825259	.....	c14	N71-26788	US-PATENT-APPL-SN-845972	.....	c09	N70-11148
US-PATENT-APPL-SN-826202	.....	c54	N77-30751	US-PATENT-APPL-SN-845973	.....	c11	N71-24985
US-PATENT-APPL-SN-826203	.....	c45	N77-31668	US-PATENT-APPL-SN-845974	.....	c33	N71-25353
US-PATENT-APPL-SN-826204	.....	c37	N79-10420	US-PATENT-APPL-SN-845990	.....	c14	N71-27005

NUMBER INDEX

US-PATENT-APPL-SN-845991	.....	c14	N71-29134	US-PATENT-APPL-SN-862921	.....	c31	N71-29050
US-PATENT-APPL-SN-847023	.....	c31	N70-37938	US-PATENT-APPL-SN-863024	.....	c46	N78-17529
US-PATENT-APPL-SN-847027	.....	c03	N70-33343	US-PATENT-APPL-SN-863276	.....	c16	N72-12440
US-PATENT-APPL-SN-847276	.....	c37	N78-11399	US-PATENT-APPL-SN-863280	.....	c24	N72-33681
US-PATENT-APPL-SN-847278	.....	c34	N79-20335	US-PATENT-APPL-SN-863280	.....	c25	N78-27226
US-PATENT-APPL-SN-847596	.....	c15	N70-10867	US-PATENT-APPL-SN-863770	.....	c44	N79-18444
US-PATENT-APPL-SN-847815	.....	c52	N75-15270	US-PATENT-APPL-SN-863773	.....	c44	N78-17468
US-PATENT-APPL-SN-848282	.....	c15	N72-21462	US-PATENT-APPL-SN-863913	.....	c14	N71-28991
US-PATENT-APPL-SN-848325	.....	c06	N70-11251	US-PATENT-APPL-SN-863914	.....	c09	N72-31235
US-PATENT-APPL-SN-848351	.....	c06	N70-11252	US-PATENT-APPL-SN-863963	.....	c10	N71-26085
US-PATENT-APPL-SN-848403	.....	c33	N74-20859	US-PATENT-APPL-SN-863967	.....	c11	N71-27036
US-PATENT-APPL-SN-848403	.....	c36	N75-27364	US-PATENT-APPL-SN-864020	.....	c15	N72-17454
US-PATENT-APPL-SN-848428	.....	c25	N78-25149	US-PATENT-APPL-SN-864039	.....	c15	N72-22483
US-PATENT-APPL-SN-848481	.....	c17	N70-33283	US-PATENT-APPL-SN-864097	.....	c07	N71-33606
US-PATENT-APPL-SN-848776	.....	c07	N72-22127	US-PATENT-APPL-SN-864710	.....	c03	N70-26817
US-PATENT-APPL-SN-848794	.....	c37	N78-13441	US-PATENT-APPL-SN-865106	.....	c09	N72-22202
US-PATENT-APPL-SN-848805	.....	c06	N72-17095	US-PATENT-APPL-SN-865109	.....	c14	N71-28933
US-PATENT-APPL-SN-848810	.....	c07	N72-11148	US-PATENT-APPL-SN-865274	.....	c09	N72-17155
US-PATENT-APPL-SN-848811	.....	c10	N71-26142	US-PATENT-APPL-SN-865298	.....	c15	N72-11388
US-PATENT-APPL-SN-849106	.....	c09	N72-22197	US-PATENT-APPL-SN-865329	.....	c15	N71-29132
US-PATENT-APPL-SN-849274	.....	c28	N79-14228	US-PATENT-APPL-SN-865811	.....	c09	N71-27053
US-PATENT-APPL-SN-850504	.....	c52	N78-11692	US-PATENT-APPL-SN-865909	.....	c14	N72-11364
US-PATENT-APPL-SN-850507	.....	c25	N79-14169	US-PATENT-APPL-SN-866442	.....	c25	N72-24753
US-PATENT-APPL-SN-850586	.....	c31	N71-25434	US-PATENT-APPL-SN-867841	.....	c11	N72-22246
US-PATENT-APPL-SN-850587	.....	c08	N72-21199	US-PATENT-APPL-SN-867842	.....	c23	N72-27728
US-PATENT-APPL-SN-851298	.....	c15	N72-12409	US-PATENT-APPL-SN-867843	.....	c14	N71-26161
US-PATENT-APPL-SN-851394	.....	c09	N71-24892	US-PATENT-APPL-SN-867851	.....	c15	N72-22484
US-PATENT-APPL-SN-852131	.....	c15	N71-24836	US-PATENT-APPL-SN-868249	.....	c33	N78-17297
US-PATENT-APPL-SN-852843	.....	c09	N72-22195	US-PATENT-APPL-SN-868445	.....	c14	N72-17323
US-PATENT-APPL-SN-853641	.....	c33	N72-25913	US-PATENT-APPL-SN-868529	.....	c08	N72-22167
US-PATENT-APPL-SN-853676	.....	c74	N78-15883	US-PATENT-APPL-SN-868530	.....	c05	N72-11084
US-PATENT-APPL-SN-853677	.....	c34	N78-13380	US-PATENT-APPL-SN-868775	.....	c09	N72-25261
US-PATENT-APPL-SN-853679	.....	c35	N79-14346	US-PATENT-APPL-SN-868775	.....	c09	N73-27150
US-PATENT-APPL-SN-853705	.....	c45	N79-12584	US-PATENT-APPL-SN-869260	.....	c05	N72-20097
US-PATENT-APPL-SN-853716	.....	c09	N71-24904	US-PATENT-APPL-SN-869260	.....	c05	N73-25125
US-PATENT-APPL-SN-853746	.....	c02	N72-11018	US-PATENT-APPL-SN-870689	.....	c06	N72-25148
US-PATENT-APPL-SN-853763	.....	c07	N70-12616	US-PATENT-APPL-SN-872602	.....	c09	N72-22200
US-PATENT-APPL-SN-853763	.....	c07	N72-33146	US-PATENT-APPL-SN-872664	.....	c08	N70-34675
US-PATENT-APPL-SN-853855	.....	c17	N72-22530	US-PATENT-APPL-SN-873045	.....	c14	N72-20379
US-PATENT-APPL-SN-853855	.....	c17	N72-28535	US-PATENT-APPL-SN-873259	.....	c08	N72-21200
US-PATENT-APPL-SN-853856	.....	c16	N71-29131	US-PATENT-APPL-SN-873260	.....	c33	N72-17948
US-PATENT-APPL-SN-853983	.....	c14	N70-33254	US-PATENT-APPL-SN-873793	.....	c14	N72-21407
US-PATENT-APPL-SN-853984	.....	c21	N70-33181	US-PATENT-APPL-SN-874177	.....	c11	N72-25284
US-PATENT-APPL-SN-854815	.....	c09	N71-24807	US-PATENT-APPL-SN-874435	.....	c11	N71-33612
US-PATENT-APPL-SN-854920	.....	c15	N78-13110	US-PATENT-APPL-SN-874732	.....	c09	N71-29139
US-PATENT-APPL-SN-855004	.....	c24	N72-11595	US-PATENT-APPL-SN-874733	.....	c15	N71-26635
US-PATENT-APPL-SN-856253	.....	c24	N74-19769	US-PATENT-APPL-SN-874958	.....	c31	N71-15566
US-PATENT-APPL-SN-856258	.....	c05	N71-17599	US-PATENT-APPL-SN-875849	.....	c07	N71-33696
US-PATENT-APPL-SN-856279	.....	c07	N72-21118	US-PATENT-APPL-SN-876298	.....	c54	N78-18762
US-PATENT-APPL-SN-856282	.....	c08	N72-22166	US-PATENT-APPL-SN-876299	.....	c35	N78-18394
US-PATENT-APPL-SN-856327	.....	c05	N72-16015	US-PATENT-APPL-SN-876431	.....	c33	N78-22299
US-PATENT-APPL-SN-856328	.....	c14	N72-22441	US-PATENT-APPL-SN-876432	.....	c36	N78-22359
US-PATENT-APPL-SN-856415	.....	c09	N71-26182	US-PATENT-APPL-SN-876438	.....	c54	N78-22721
US-PATENT-APPL-SN-856460	.....	c25	N78-17171	US-PATENT-APPL-SN-876440	.....	c51	N78-18674
US-PATENT-APPL-SN-856461	.....	c34	N79-12359	US-PATENT-APPL-SN-876441	.....	c74	N79-20856
US-PATENT-APPL-SN-856462	.....	c34	N79-21313	US-PATENT-APPL-SN-876588	.....	c15	N72-25452
US-PATENT-APPL-SN-856464	.....	c36	N79-14362	US-PATENT-APPL-SN-876588	.....	c25	N74-30502
US-PATENT-APPL-SN-856465	.....	c44	N78-13556	US-PATENT-APPL-SN-877717	.....	c14	N72-27410
US-PATENT-APPL-SN-856466	.....	c76	N78-13917	US-PATENT-APPL-SN-877717	.....	c14	N73-13417
US-PATENT-APPL-SN-857241	.....	c46	N74-23069	US-PATENT-APPL-SN-877786	.....	c99	N79-10995
US-PATENT-APPL-SN-857445	.....	c05	N71-24728	US-PATENT-APPL-SN-877990	.....	c14	N72-28437
US-PATENT-APPL-SN-857967	.....	c15	N72-20443	US-PATENT-APPL-SN-878253	.....	c25	N78-33164
US-PATENT-APPL-SN-858596	.....	c35	N78-18395	US-PATENT-APPL-SN-878539	.....	c35	N78-18393
US-PATENT-APPL-SN-858695	.....	c11	N72-22247	US-PATENT-APPL-SN-878540	.....	c05	N78-18045
US-PATENT-APPL-SN-858761	.....	c27	N78-25219	US-PATENT-APPL-SN-878541	.....	c37	N78-22376
US-PATENT-APPL-SN-858762	.....	c08	N78-17070	US-PATENT-APPL-SN-878542	.....	c33	N78-18313
US-PATENT-APPL-SN-858764	.....	c33	N79-10338	US-PATENT-APPL-SN-878730	.....	c08	N72-22164
US-PATENT-APPL-SN-858765	.....	c33	N79-11313	US-PATENT-APPL-SN-878731	.....	c15	N71-26162
US-PATENT-APPL-SN-858766	.....	c27	N79-14213	US-PATENT-APPL-SN-880246	.....	c28	N72-22770
US-PATENT-APPL-SN-858767	.....	c32	N78-18266	US-PATENT-APPL-SN-880247	.....	c09	N70-20737
US-PATENT-APPL-SN-858769	.....	c44	N78-19609	US-PATENT-APPL-SN-880248	.....	c07	N72-11150
US-PATENT-APPL-SN-858950	.....	c35	N78-17359	US-PATENT-APPL-SN-880249	.....	c15	N72-22482
US-PATENT-APPL-SN-860404	.....	c37	N78-17391	US-PATENT-APPL-SN-880250	.....	c03	N72-20032
US-PATENT-APPL-SN-860406	.....	c24	N79-17916	US-PATENT-APPL-SN-880271	.....	c15	N72-25448
US-PATENT-APPL-SN-860492	.....	c09	N72-20199	US-PATENT-APPL-SN-880272	.....	c14	N71-27058
US-PATENT-APPL-SN-860493	.....	c14	N72-16283	US-PATENT-APPL-SN-880398	.....	c15	N73-12487
US-PATENT-APPL-SN-860635	.....	c28	N72-17843	US-PATENT-APPL-SN-880725	.....	c02	N78-19055
US-PATENT-APPL-SN-860750	.....	c08	N72-22165	US-PATENT-APPL-SN-880726	.....	c44	N78-22469
US-PATENT-APPL-SN-860751	.....	c08	N72-18184	US-PATENT-APPL-SN-880727	.....	c51	N78-22587
US-PATENT-APPL-SN-860781	.....	c18	N72-22567	US-PATENT-APPL-SN-880728	.....	c25	N78-22187
US-PATENT-APPL-SN-861152	.....	c14	N70-33322	US-PATENT-APPL-SN-880729	.....	c74	N78-22891
US-PATENT-APPL-SN-861389	.....	c03	N78-25070	US-PATENT-APPL-SN-880831	.....	c11	N72-20244
US-PATENT-APPL-SN-861390	.....	c28	N78-17230	US-PATENT-APPL-SN-880838	.....	c37	N78-19515
US-PATENT-APPL-SN-861391	.....	c44	N79-12541	US-PATENT-APPL-SN-880885	.....	c07	N72-12080
US-PATENT-APPL-SN-861392	.....	c71	N78-19898	US-PATENT-APPL-SN-881039	.....	c09	N71-24842
US-PATENT-APPL-SN-861396	.....	c35	N79-14349	US-PATENT-APPL-SN-881041	.....	c09	N72-22204
US-PATENT-APPL-SN-861649	.....	c14	N72-17327	US-PATENT-APPL-SN-882122	.....	c14	N72-22438
US-PATENT-APPL-SN-862878	.....	c02	N78-22026	US-PATENT-APPL-SN-882577	.....	c07	N71-27056
US-PATENT-APPL-SN-862880	.....	c27	N78-17217	US-PATENT-APPL-SN-883090	.....	c44	N78-22468

BUSBER INDEX

US-PATENT-APPL-SN-883094	c54	N78-18763	US-PATENT-APPL-SN-912276	c24	N78-27182
US-PATENT-APPL-SN-883523	c09	N72-33204	US-PATENT-APPL-SN-914260	c44	N78-25554
US-PATENT-APPL-SN-883524	c09	N72-21246	US-PATENT-APPL-SN-915050	c44	N78-25553
US-PATENT-APPL-SN-883961	c23	N78-22156	US-PATENT-APPL-SN-916654	c07	N78-27122
US-PATENT-APPL-SN-885061	c54	N78-19773	US-PATENT-APPL-SN-916655	c44	N78-27520
US-PATENT-APPL-SN-885065	c35	N79-18296	US-PATENT-APPL-SN-918534	c33	N78-28340
US-PATENT-APPL-SN-885066	c09	N78-19166	US-PATENT-APPL-SN-918535	c35	N78-27385
US-PATENT-APPL-SN-885067	c33	N78-22298	US-PATENT-APPL-SN-918537	c26	N78-27255
US-PATENT-APPL-SN-885521	c03	N72-28025	US-PATENT-APPL-SN-920878	c24	N78-27184
US-PATENT-APPL-SN-885571	c09	N71-28886	US-PATENT-APPL-SN-920879	c44	N78-27541
US-PATENT-APPL-SN-885594	c15	N71-29133	US-PATENT-APPL-SN-920947	c25	N78-27233
US-PATENT-APPL-SN-886907	c37	N77-22478	US-PATENT-APPL-SN-921626	c27	N78-27275
US-PATENT-APPL-SN-887685	c10	N72-20223	US-PATENT-APPL-SN-921627	c33	N78-27330
US-PATENT-APPL-SN-887698	c09	N72-17153	US-PATENT-APPL-SN-923758	c20	N78-27176
US-PATENT-APPL-SN-887699	c15	N72-17452	US-PATENT-APPL-SN-928128	c44	N78-28625
US-PATENT-APPL-SN-887700	c07	N71-28980	US-PATENT-APPL-SN-928129	c35	N78-31406
US-PATENT-APPL-SN-887701	c08	N71-29034	US-PATENT-APPL-SN-928130	c71	N78-29871
US-PATENT-APPL-SN-888432	c35	N78-22348	US-PATENT-APPL-SN-928131	c54	N78-30821
US-PATENT-APPL-SN-888434	c51	N78-22585	US-PATENT-APPL-SN-928132	c32	N78-29310
US-PATENT-APPL-SN-889374	c08	N72-25207	US-PATENT-APPL-SN-928133	c44	N78-28626
US-PATENT-APPL-SN-889375	c10	N72-20222	US-PATENT-APPL-SN-928137	c33	N78-28339
US-PATENT-APPL-SN-889376	c18	N71-26285	US-PATENT-APPL-SN-929083	c36	N78-29435
US-PATENT-APPL-SN-889387	c09	N71-29035	US-PATENT-APPL-SN-929084	c37	N78-28459
US-PATENT-APPL-SN-889420	c14	N72-25413	US-PATENT-APPL-SN-929086	c24	N78-28178
US-PATENT-APPL-SN-889422	c09	N72-25259	US-PATENT-APPL-SN-929087	c35	N78-32398
US-PATENT-APPL-SN-889423	c10	N72-22236	US-PATENT-APPL-SN-929088	c74	N78-29902
US-PATENT-APPL-SN-889437	c15	N72-11392	US-PATENT-APPL-SN-931090	c07	N78-31103
US-PATENT-APPL-SN-889438	c15	N72-18477	US-PATENT-APPL-SN-931217	c37	N78-28460
US-PATENT-APPL-SN-889478	c08	N71-29138	US-PATENT-APPL-SN-931218	c20	N78-31162
US-PATENT-APPL-SN-889479	c14	N72-17325	US-PATENT-APPL-SN-932108	c09	N79-10069
US-PATENT-APPL-SN-889551	c21	N72-21624	US-PATENT-APPL-SN-934576	c09	N78-33123
US-PATENT-APPL-SN-889554	c15	N72-20444	US-PATENT-APPL-SN-935811	c37	N78-32429
US-PATENT-APPL-SN-889555	c09	N72-17154	US-PATENT-APPL-SN-935827	c31	N79-18087
US-PATENT-APPL-SN-889556	c14	N72-18411	US-PATENT-APPL-SN-938293	c31	N79-10246
US-PATENT-APPL-SN-889557	c11	N72-17183	US-PATENT-APPL-SN-938297	c25	N79-10169
US-PATENT-APPL-SN-889558	c15	N72-22491	US-PATENT-APPL-SN-938298	c33	N78-32347
US-PATENT-APPL-SN-889583	c15	N72-21464	US-PATENT-APPL-SN-938299	c76	N79-10918
US-PATENT-APPL-SN-889584	c08	N72-31226	US-PATENT-APPL-SN-938300	c37	N79-10427
US-PATENT-APPL-SN-889671	c24	N78-22162	US-PATENT-APPL-SN-938579	c76	N79-10917
US-PATENT-APPL-SN-889682	c15	N72-25447	US-PATENT-APPL-SN-938580	c25	N79-10168
US-PATENT-APPL-SN-891243	c44	N78-22470	US-PATENT-APPL-SN-938581	c04	N79-10039
US-PATENT-APPL-SN-891246	c36	N78-25409	US-PATENT-APPL-SN-938582	c37	N78-32431
US-PATENT-APPL-SN-891247	c51	N78-22586	US-PATENT-APPL-SN-940688	c24	N78-32189
US-PATENT-APPL-SN-891356	c43	N78-22436	US-PATENT-APPL-SN-940689	c35	N78-32399
US-PATENT-APPL-SN-891358	c44	N78-25560	US-PATENT-APPL-SN-941711	c24	N78-32190
US-PATENT-APPL-SN-891370	c20	N79-20179	US-PATENT-APPL-SN-943086	c37	N78-32435
US-PATENT-APPL-SN-891373	c25	N78-22186	US-PATENT-APPL-SN-943087	c15	N78-32168
US-PATENT-APPL-SN-891872	c23	N78-22154	US-PATENT-APPL-SN-943088	c37	N78-32436
US-PATENT-APPL-SN-891875	c23	N78-22155	US-PATENT-APPL-SN-943089	c74	N78-32857
US-PATENT-APPL-SN-893382	c51	N78-22590	US-PATENT-APPL-SN-945040	c37	N78-32434
US-PATENT-APPL-SN-893383	c18	N78-22146	US-PATENT-APPL-SN-945041	c43	N78-33511
US-PATENT-APPL-SN-893648	c51	N78-22589	US-PATENT-APPL-SN-945043	c33	N79-13262
US-PATENT-APPL-SN-893657	c51	N78-22588	US-PATENT-APPL-SN-945044	c54	N78-32724
US-PATENT-APPL-SN-893857	c24	N78-22163	US-PATENT-APPL-SN-946990	c28	N79-10227
US-PATENT-APPL-SN-893865	c37	N78-22378	US-PATENT-APPL-SN-946991	c37	N78-33446
US-PATENT-APPL-SN-893903	c35	N78-22347	US-PATENT-APPL-SN-946992	c25	N79-10167
US-PATENT-APPL-SN-894213	c37	N78-23434	US-PATENT-APPL-SN-946994	c44	N79-10529
US-PATENT-APPL-SN-896955	c33	N78-25323	US-PATENT-APPL-SN-946995	c35	N79-10392
US-PATENT-APPL-SN-897828	c54	N78-22720	US-PATENT-APPL-SN-947000	c28	N79-10225
US-PATENT-APPL-SN-897829	c23	N78-22157	US-PATENT-APPL-SN-950876	c37	N79-10426
US-PATENT-APPL-SN-897830	c18	N78-23141	US-PATENT-APPL-SN-950877	c52	N79-14756
US-PATENT-APPL-SN-897831	c37	N78-24554	US-PATENT-APPL-SN-951422	c52	N78-33717
US-PATENT-APPL-SN-897832	c31	N78-24387	US-PATENT-APPL-SN-951423	c48	N79-10689
US-PATENT-APPL-SN-897840	c34	N78-22328	US-PATENT-APPL-SN-951828	c31	N79-10245
US-PATENT-APPL-SN-899123	c44	N79-14528	US-PATENT-APPL-SN-951829	c32	N79-10271
US-PATENT-APPL-SN-900832	c24	N78-25137	US-PATENT-APPL-SN-951830	c28	N79-10224
US-PATENT-APPL-SN-900841	c32	N78-25274	US-PATENT-APPL-SN-953313	c32	N79-19194
US-PATENT-APPL-SN-900842	c32	N78-23275	US-PATENT-APPL-SN-953314	c31	N79-11249
US-PATENT-APPL-SN-900843	c44	N78-23567	US-PATENT-APPL-SN-953389	c74	N79-14892
US-PATENT-APPL-SN-901055	c76	N78-24952	US-PATENT-APPL-SN-953390	c74	N79-11866
US-PATENT-APPL-SN-901056	c32	N78-24402	US-PATENT-APPL-SN-953391	c75	N79-10894
US-PATENT-APPL-SN-901892	c44	N78-25555	US-PATENT-APPL-SN-956160	c32	N79-14272
US-PATENT-APPL-SN-903019	c46	N79-19521	US-PATENT-APPL-SN-956161	c27	N79-11215
US-PATENT-APPL-SN-906297	c44	N79-14529	US-PATENT-APPL-SN-956162	c52	N79-11684
US-PATENT-APPL-SN-906298	c31	N78-24386	US-PATENT-APPL-SN-956168	c35	N79-19319
US-PATENT-APPL-SN-906299	c27	N78-24360	US-PATENT-APPL-SN-956529	c35	N79-17196
US-PATENT-APPL-SN-907421	c37	N78-25430	US-PATENT-APPL-SN-956573	c35	N79-12416
US-PATENT-APPL-SN-907431	c37	N78-25431	US-PATENT-APPL-SN-958575	c27	N79-11216
US-PATENT-APPL-SN-907435	c27	N78-25216	US-PATENT-APPL-SN-961831	c33	N79-13261
US-PATENT-APPL-SN-907436	c37	N78-25429	US-PATENT-APPL-SN-961832	c37	N79-12445
US-PATENT-APPL-SN-907479	c27	N78-25217	US-PATENT-APPL-SN-961833	c37	N79-12446
US-PATENT-APPL-SN-909100	c37	N78-25428	US-PATENT-APPL-SN-964009	c02	N79-16805
US-PATENT-APPL-SN-910707	c32	N78-25275	US-PATENT-APPL-SN-964754	c44	N79-14538
US-PATENT-APPL-SN-910708	c06	N78-25088	US-PATENT-APPL-SN-965367	c33	N79-14308
US-PATENT-APPL-SN-910709	c37	N78-25432	US-PATENT-APPL-SN-965368	c35	N79-19317
US-PATENT-APPL-SN-910793	c44	N78-25557	US-PATENT-APPL-SN-966549	c20	N79-13077
US-PATENT-APPL-SN-910794	c15	N78-25120	US-PATENT-APPL-SN-969755	c08	N79-15057
US-PATENT-APPL-SN-910992	c52	N78-27750	US-PATENT-APPL-SN-969756	c37	N79-17224
US-PATENT-APPL-SN-911747	c24	N78-25138	US-PATENT-APPL-SN-969757	c24	N79-16923

NUMBER INDEX

US-PATENT-APPL-SN-969759	c37 N79-14388	US-PATENT-CLASS-13-31	c11 N72-23215
US-PATENT-APPL-SN-969760	c76 N79-14908	US-PATENT-CLASS-13-31	c31 N74-27900
US-PATENT-APPL-SN-969761	c32 N79-14278	US-PATENT-CLASS-13-35	c33 N71-24145
US-PATENT-APPL-SN-969762	c32 N79-14276	US-PATENT-CLASS-15-143	c15 N72-11390
US-PATENT-APPL-SN-971473	c25 N79-14173	US-PATENT-CLASS-15-210	c15 N72-11390
US-PATENT-APPL-SN-971474	c20 N79-15151	US-PATENT-CLASS-15-230.16	c37 N79-10422
US-PATENT-APPL-SN-971475	c25 N79-14174	US-PATENT-CLASS-15-230.17	c37 N79-10422
US-PATENT-APPL-SN-971596	c25 N79-14172	US-PATENT-CLASS-15-415	c14 N73-30395
US-PATENT-APPL-SN-974292	c26 N79-16943	US-PATENT-CLASS-18-6	c15 N71-26721
US-PATENT-APPL-SN-974471	c32 N79-14277	US-PATENT-CLASS-18-26	c06 N71-22975
US-PATENT-APPL-SN-974472	c37 N79-17225	US-PATENT-CLASS-18-39	c27 N70-34783
US-PATENT-APPL-SN-974473	c60 N79-14797	US-PATENT-CLASS-19-205	c37 N76-18456
US-PATENT-APPL-SN-974474	c25 N79-14177	US-PATENT-CLASS-21-207	c17 N71-16393
US-PATENT-APPL-SN-974475	c33 N79-17138	US-PATENT-CLASS-22-200	c15 N71-15966
US-PATENT-APPL-SN-974476	c52 N79-14755	US-PATENT-CLASS-22-203	c17 N70-38198
US-PATENT-CLASS-D12-76	c05 N75-25914	US-PATENT-CLASS-23-55	c06 N72-17093
US-PATENT-CLASS-D71-1	c05 N74-10907	US-PATENT-CLASS-23-88	c06 N72-17093
US-PATENT-CLASS-1	c14 N71-27005	US-PATENT-CLASS-23-97	c04 N72-33072
US-PATENT-CLASS-2-2.1	c05 N71-11194	US-PATENT-CLASS-23-109	c06 N72-17095
US-PATENT-CLASS-2-2.1	c05 N71-11195	US-PATENT-CLASS-23-201	c15 N69-21922
US-PATENT-CLASS-2-2.1	c05 N71-12335	US-PATENT-CLASS-23-208	c26 N70-36805
US-PATENT-CLASS-2-2.1	c05 N71-12344	US-PATENT-CLASS-23-209.1	c15 N72-20446
US-PATENT-CLASS-2-2.1	c05 N71-23161	US-PATENT-CLASS-23-230	c06 N71-23527
US-PATENT-CLASS-2-2.1	c05 N71-24623	US-PATENT-CLASS-23-230	c06 N72-17095
US-PATENT-CLASS-2-2.1	c05 N71-24730	US-PATENT-CLASS-23-230B	c25 N75-14844
US-PATENT-CLASS-2-2.1	c05 N72-20096	US-PATENT-CLASS-23-230B	c23 N77-17161
US-PATENT-CLASS-2-2.1	c05 N72-20098	US-PATENT-CLASS-23-230B	c25 N79-14169
US-PATENT-CLASS-2-2.1	c05 N72-25119	US-PATENT-CLASS-23-230L	c35 N74-32879
US-PATENT-CLASS-2-2.1	c05 N73-26071	US-PATENT-CLASS-23-230M	c25 N76-18245
US-PATENT-CLASS-2-2.1	c34 N78-17337	US-PATENT-CLASS-23-230M	c23 N77-17161
US-PATENT-CLASS-2-2.1	c54 N78-17678	US-PATENT-CLASS-23-230PC	c25 N78-15210
US-PATENT-CLASS-2-2.1	c54 N78-18761	US-PATENT-CLASS-23-230R	c06 N72-17094
US-PATENT-CLASS-2-2.1	c54 N79-21766	US-PATENT-CLASS-23-230R	c17 N73-12547
US-PATENT-CLASS-2-2.1	c05 N72-22092	US-PATENT-CLASS-23-230R	c17 N73-27446
US-PATENT-CLASS-2-2.1A	c05 N73-25125	US-PATENT-CLASS-23-230R	c25 N76-18245
US-PATENT-CLASS-2-2.1A	c05 N73-32012	US-PATENT-CLASS-23-230R	c45 N76-31714
US-PATENT-CLASS-2-2.1A	c54 N74-32546	US-PATENT-CLASS-23-231	c23 N77-17161
US-PATENT-CLASS-2-2.1A	c54 N77-32721	US-PATENT-CLASS-23-232C	c06 N72-17094
US-PATENT-CLASS-2-2.1A	c54 N78-17675	US-PATENT-CLASS-23-232C	c25 N76-18245
US-PATENT-CLASS-2-2.1A	c54 N78-31735	US-PATENT-CLASS-23-232C	c23 N77-17161
US-PATENT-CLASS-2-2.1A	c54 N78-31736	US-PATENT-CLASS-23-232E	c06 N73-16106
US-PATENT-CLASS-2-6	c05 N71-26333	US-PATENT-CLASS-23-232E	c45 N76-31714
US-PATENT-CLASS-2-6	c54 N78-17680	US-PATENT-CLASS-23-232E	c25 N78-15210
US-PATENT-CLASS-2-14	c05 N71-23096	US-PATENT-CLASS-23-232R	c06 N73-16106
US-PATENT-CLASS-2-81	c18 N71-26285	US-PATENT-CLASS-23-232R	c45 N76-31714
US-PATENT-CLASS-2-81	c05 N73-32012	US-PATENT-CLASS-23-232R	c23 N77-17161
US-PATENT-CLASS-2-82	c54 N74-32546	US-PATENT-CLASS-23-232R	c25 N78-15210
US-PATENT-CLASS-2-115	c05 N72-25119	US-PATENT-CLASS-23-252R	c25 N74-12813
US-PATENT-CLASS-2-161	c54 N78-17677	US-PATENT-CLASS-23-252R	c25 N79-10162
US-PATENT-CLASS-2-275	c18 N71-26285	US-PATENT-CLASS-23-253	c23 N71-16355
US-PATENT-CLASS-3-1	c52 N77-25772	US-PATENT-CLASS-23-253	c06 N71-26754
US-PATENT-CLASS-3-1.1	c05 N73-32013	US-PATENT-CLASS-23-253	c06 N72-17095
US-PATENT-CLASS-3-1.1	c52 N77-14738	US-PATENT-CLASS-23-253A	c51 N77-27677
US-PATENT-CLASS-3-1.2	c52 N77-14735	US-PATENT-CLASS-23-253A	c54 N78-14784
US-PATENT-CLASS-3-1.2	c52 N78-10686	US-PATENT-CLASS-23-253PC	c06 N72-17094
US-PATENT-CLASS-3-1.9	c27 N78-17215	US-PATENT-CLASS-23-253PC	c37 N74-18123
US-PATENT-CLASS-3-2	c05 N73-32013	US-PATENT-CLASS-23-253R	c15 N72-21465
US-PATENT-CLASS-3-2	c54 N77-30749	US-PATENT-CLASS-23-253R	c25 N75-14844
US-PATENT-CLASS-3-6	c05 N73-32013	US-PATENT-CLASS-23-253R	c25 N76-18245
US-PATENT-CLASS-3-12	c05 N73-32013	US-PATENT-CLASS-23-254	c14 N71-20442
US-PATENT-CLASS-3-12.5	c54 N78-17676	US-PATENT-CLASS-23-254E	c06 N73-16106
US-PATENT-CLASS-3-14	c52 N77-14735	US-PATENT-CLASS-23-254E	c33 N75-26245
US-PATENT-CLASS-3-15	c52 N78-10686	US-PATENT-CLASS-23-254E	c35 N75-29380
US-PATENT-CLASS-3-21	c54 N77-30749	US-PATENT-CLASS-23-254E	c45 N76-21742
US-PATENT-CLASS-3-29	c52 N78-10686	US-PATENT-CLASS-23-254EP	c35 N76-18403
US-PATENT-CLASS-4-10	c54 N74-20725	US-PATENT-CLASS-23-254R	c06 N73-16106
US-PATENT-CLASS-4-99	c05 N72-22093	US-PATENT-CLASS-23-254R	c25 N76-18245
US-PATENT-CLASS-4-110	c05 N72-22093	US-PATENT-CLASS-23-254R	c23 N77-17161
US-PATENT-CLASS-4-120	c54 N74-20725	US-PATENT-CLASS-23-255E	c35 N75-29380
US-PATENT-CLASS-5-69	c05 N72-11085	US-PATENT-CLASS-23-255R	c25 N76-18245
US-PATENT-CLASS-5-82	c05 N71-23159	US-PATENT-CLASS-23-259	c15 N71-27372
US-PATENT-CLASS-5-345	c05 N70-33285	US-PATENT-CLASS-23-259	c15 N72-21465
US-PATENT-CLASS-8-3	c51 N77-27677	US-PATENT-CLASS-23-259	c37 N74-18123
US-PATENT-CLASS-8-94.11	c51 N77-27677	US-PATENT-CLASS-23-259	c51 N77-27677
US-PATENT-CLASS-8-94.12	c18 N71-15545	US-PATENT-CLASS-23-277C	c26 N70-40015
US-PATENT-CLASS-9-2A	c02 N73-26006	US-PATENT-CLASS-23-277R	c25 N74-33378
US-PATENT-CLASS-9-3	c02 N73-26006	US-PATENT-CLASS-23-281	c44 N77-22607
US-PATENT-CLASS-9-8	c03 N70-36778	US-PATENT-CLASS-23-281	c28 N72-18766
US-PATENT-CLASS-9-9	c15 N71-24600	US-PATENT-CLASS-23-281	c25 N74-12813
US-PATENT-CLASS-9-11	c05 N70-34857	US-PATENT-CLASS-23-281	c44 N76-18642
US-PATENT-CLASS-9-11A	c02 N73-26006	US-PATENT-CLASS-23-281	c44 N76-29700
US-PATENT-CLASS-9-11A	c54 N74-14845	US-PATENT-CLASS-23-281	c44 N77-10636
US-PATENT-CLASS-9-312	c05 N71-22748	US-PATENT-CLASS-23-284	c44 N77-22607
US-PATENT-CLASS-9-316	c05 N70-36493	US-PATENT-CLASS-23-288	c35 N74-15127
US-PATENT-CLASS-13-20	c11 N72-23215	US-PATENT-CLASS-23-288F	c28 N72-18766
US-PATENT-CLASS-13-26	c33 N71-15625	US-PATENT-CLASS-23-288J	c25 N74-12813
US-PATENT-CLASS-13-26	c14 N71-23267		c25 N74-12813

NUMBER INDEX

US-PATENT-CLASS-23-292	c51 N77-27677	US-PATENT-CLASS-29-460	c37 N75-13261
US-PATENT-CLASS-24-126	c15 N71-22994	US-PATENT-CLASS-29-463	c07 N78-33101
US-PATENT-CLASS-24-134B	c15 N73-25512	US-PATENT-CLASS-29-467	c39 N76-31562
US-PATENT-CLASS-24-205.17	c15 N71-25975	US-PATENT-CLASS-29-470.1	c37 N74-21057
US-PATENT-CLASS-24-211	c15 N71-17653	US-PATENT-CLASS-29-470.1	c37 N75-12326
US-PATENT-CLASS-24-211B	c15 N72-11385	US-PATENT-CLASS-29-472.7	c37 N75-15992
US-PATENT-CLASS-24-263	c15 N71-21076	US-PATENT-CLASS-29-472.9	c15 N69-39786
US-PATENT-CLASS-24-263	c15 N71-26162	US-PATENT-CLASS-29-472.9	c26 N71-16037
US-PATENT-CLASS-25-156	c15 N71-16076	US-PATENT-CLASS-29-472.9	c15 N72-22492
US-PATENT-CLASS-27-498	c15 N73-28515	US-PATENT-CLASS-29-473.1	c15 N72-22487
US-PATENT-CLASS-29-DIG.24	c24 N75-33181	US-PATENT-CLASS-29-473.1	c15 N72-22492
US-PATENT-CLASS-29-DIG.35	c37 N77-23482	US-PATENT-CLASS-29-473.1	c37 N75-15992
US-PATENT-CLASS-29-DIG.39	c24 N75-33181	US-PATENT-CLASS-29-475	c37 N75-12326
US-PATENT-CLASS-29-23.5	c37 N78-24544	US-PATENT-CLASS-29-482	c05 N72-25121
US-PATENT-CLASS-29-25.14	c05 N72-25121	US-PATENT-CLASS-29-482	c37 N74-18128
US-PATENT-CLASS-29-25.18	c09 N71-26678	US-PATENT-CLASS-29-487	c15 N73-33383
US-PATENT-CLASS-29-25.18	c05 N72-25121	US-PATENT-CLASS-29-487	c37 N74-21055
US-PATENT-CLASS-29-25.18	c20 N75-18310	US-PATENT-CLASS-29-488	c15 N70-33311
US-PATENT-CLASS-29-25.18	c20 N76-21276	US-PATENT-CLASS-29-488	c37 N74-18128
US-PATENT-CLASS-29-25.42	c26 N72-28762	US-PATENT-CLASS-29-492	c15 N71-20443
US-PATENT-CLASS-29-26A	c37 N75-33395	US-PATENT-CLASS-29-492	c09 N72-25261
US-PATENT-CLASS-29-81C	c75 N78-27913	US-PATENT-CLASS-29-494	c15 N73-33383
US-PATENT-CLASS-29-81D	c37 N76-18454	US-PATENT-CLASS-29-494	c37 N74-21055
US-PATENT-CLASS-29-125	c37 N79-10422	US-PATENT-CLASS-29-494	c37 N75-13261
US-PATENT-CLASS-29-148.4	c15 N71-16052	US-PATENT-CLASS-29-495	c15 N71-21078
US-PATENT-CLASS-29-148.4	c15 N71-17688	US-PATENT-CLASS-29-497	c09 N72-25261
US-PATENT-CLASS-29-148.4A	c37 N74-15128	US-PATENT-CLASS-29-497	c15 N73-32358
US-PATENT-CLASS-29-148.4B	c37 N74-15128	US-PATENT-CLASS-29-497	c37 N74-18128
US-PATENT-CLASS-29-155.55	c15 N71-15986	US-PATENT-CLASS-29-497.5	c15 N73-28515
US-PATENT-CLASS-29-156.8R	c37 N78-24544	US-PATENT-CLASS-29-497.5	c15 N73-33383
US-PATENT-CLASS-29-157	c28 N71-15658	US-PATENT-CLASS-29-497.5	c37 N74-11300
US-PATENT-CLASS-29-157.3	c28 N70-41818	US-PATENT-CLASS-29-498	c37 N75-13261
US-PATENT-CLASS-29-157.3R	c34 N74-18552	US-PATENT-CLASS-29-498	c09 N72-25261
US-PATENT-CLASS-29-182	c37 N74-13179	US-PATENT-CLASS-29-498	c15 N73-33383
US-PATENT-CLASS-29-182	c34 N76-27515	US-PATENT-CLASS-29-498	c37 N74-11301
US-PATENT-CLASS-29-182.1	c18 N71-23710	US-PATENT-CLASS-29-498	c37 N74-18128
US-PATENT-CLASS-29-182.2	c17 N71-23046	US-PATENT-CLASS-29-498	c37 N74-21055
US-PATENT-CLASS-29-182.2	c37 N75-26371	US-PATENT-CLASS-29-502	c09 N72-25261
US-PATENT-CLASS-29-182.5	c17 N72-28536	US-PATENT-CLASS-29-503	c37 N74-11301
US-PATENT-CLASS-29-182.5	c37 N75-26371	US-PATENT-CLASS-29-504	c37 N74-21055
US-PATENT-CLASS-29-182.5	c27 N76-15311	US-PATENT-CLASS-29-504	c37 N75-13261
US-PATENT-CLASS-29-182.5	c27 N77-13217	US-PATENT-CLASS-29-517	c15 N71-17650
US-PATENT-CLASS-29-183.5	c17 N70-38490	US-PATENT-CLASS-29-526	c37 N76-19437
US-PATENT-CLASS-29-193	c34 N76-27515	US-PATENT-CLASS-29-526	c39 N76-31562
US-PATENT-CLASS-29-194	c26 N75-19408	US-PATENT-CLASS-29-527.2	c15 N72-20444
US-PATENT-CLASS-29-194	c44 N76-14595	US-PATENT-CLASS-29-527.2	c15 N73-32360
US-PATENT-CLASS-29-195	c44 N76-14595	US-PATENT-CLASS-29-527.2	c37 N74-11301
US-PATENT-CLASS-29-195A	c27 N76-16229	US-PATENT-CLASS-29-527.2	c24 N75-33181
US-PATENT-CLASS-29-195Y	c14 N73-32320	US-PATENT-CLASS-29-527.2	c24 N77-19171
US-PATENT-CLASS-29-196.2	c17 N73-32414	US-PATENT-CLASS-29-570	c26 N72-28761
US-PATENT-CLASS-29-196.2	c26 N75-19408	US-PATENT-CLASS-29-571	c35 N75-13213
US-PATENT-CLASS-29-196.6	c17 N73-32414	US-PATENT-CLASS-29-571	c33 N78-27326
US-PATENT-CLASS-29-196.6	c37 N75-13261	US-PATENT-CLASS-29-572	c09 N71-23027
US-PATENT-CLASS-29-196.6	c26 N75-19408	US-PATENT-CLASS-29-572	c03 N71-24681
US-PATENT-CLASS-29-197	c17 N73-32414	US-PATENT-CLASS-29-572	c03 N72-22041
US-PATENT-CLASS-29-197	c37 N75-13261	US-PATENT-CLASS-29-572	c44 N74-14784
US-PATENT-CLASS-29-197	c26 N75-19408	US-PATENT-CLASS-29-572	c44 N76-14600
US-PATENT-CLASS-29-197	c44 N76-14595	US-PATENT-CLASS-29-572	c44 N76-28635
US-PATENT-CLASS-29-198	c17 N70-33288	US-PATENT-CLASS-29-572	c44 N77-10635
US-PATENT-CLASS-29-198	c09 N72-25259	US-PATENT-CLASS-29-572	c44 N78-24609
US-PATENT-CLASS-29-203H	c37 N74-32918	US-PATENT-CLASS-29-572	c44 N78-25527
US-PATENT-CLASS-29-203H	c33 N74-26977	US-PATENT-CLASS-29-572	c44 N78-25528
US-PATENT-CLASS-29-203V	c15 N73-14468	US-PATENT-CLASS-29-572	c44 N78-25529
US-PATENT-CLASS-29-234	c15 N70-36901	US-PATENT-CLASS-29-572	c44 N79-11468
US-PATENT-CLASS-29-244	c37 N78-24544	US-PATENT-CLASS-29-572	c44 N79-11472
US-PATENT-CLASS-29-252	c37 N78-24544	US-PATENT-CLASS-29-572	c44 N79-17314
US-PATENT-CLASS-29-268	c37 N74-32918	US-PATENT-CLASS-29-572	c44 N79-18404
US-PATENT-CLASS-29-271	c15 N70-41371	US-PATENT-CLASS-29-573	c14 N73-13417
US-PATENT-CLASS-29-278H	c15 N71-29133	US-PATENT-CLASS-29-578	c26 N72-17820
US-PATENT-CLASS-29-400	c05 N71-12345	US-PATENT-CLASS-29-578	c33 N78-27326
US-PATENT-CLASS-29-412	c15 N72-20444	US-PATENT-CLASS-29-578	c44 N79-18444
US-PATENT-CLASS-29-419	c24 N75-28135	US-PATENT-CLASS-29-580	c09 N73-27150
US-PATENT-CLASS-29-420	c24 N75-13032	US-PATENT-CLASS-29-588	c14 N71-27334
US-PATENT-CLASS-29-420.5	c26 N74-10521	US-PATENT-CLASS-29-588	c14 N72-31446
US-PATENT-CLASS-29-420.5	c37 N74-13179	US-PATENT-CLASS-29-588	c44 N74-14784
US-PATENT-CLASS-29-420.5	c37 N75-26371	US-PATENT-CLASS-29-589	c26 N72-17820
US-PATENT-CLASS-29-421	c15 N71-29018	US-PATENT-CLASS-29-589	c09 N72-25261
US-PATENT-CLASS-29-421	c14 N72-22439	US-PATENT-CLASS-29-589	c15 N73-14469
US-PATENT-CLASS-29-421	c37 N76-14461	US-PATENT-CLASS-29-590	c09 N72-22199
US-PATENT-CLASS-29-421E	c37 N79-13364	US-PATENT-CLASS-29-591	c15 N73-14469
US-PATENT-CLASS-29-423	c15 N70-36409	US-PATENT-CLASS-29-591	c44 N79-18444
US-PATENT-CLASS-29-423	c31 N74-21059	US-PATENT-CLASS-29-592	c35 N75-13213
US-PATENT-CLASS-29-426	c15 N72-20444	US-PATENT-CLASS-29-597	c33 N77-26385
US-PATENT-CLASS-29-428	c15 N71-17686	US-PATENT-CLASS-29-599	c15 N72-25447
US-PATENT-CLASS-29-432	c37 N76-19437	US-PATENT-CLASS-29-599	c26 N73-26752
US-PATENT-CLASS-29-433	c37 N76-19437	US-PATENT-CLASS-29-599	c26 N73-32571
US-PATENT-CLASS-29-447	c37 N77-23482	US-PATENT-CLASS-29-603	c08 N71-27210
US-PATENT-CLASS-29-452	c15 N73-30457	US-PATENT-CLASS-29-604	c24 N75-13032
US-PATENT-CLASS-29-460	c37 N74-11301	US-PATENT-CLASS-29-610	c24 N75-30260

NUMBER INDEX

US-PATENT-CLASS-29-613	c24	N75-30260	US-PATENT-CLASS-44-1R	c44	N78-31527
US-PATENT-CLASS-29-622	c33	N77-26385	US-PATENT-CLASS-44-2	c44	N78-31527
US-PATENT-CLASS-29-624	c15	N72-20444	US-PATENT-CLASS-44-51	c25	N79-11152
US-PATENT-CLASS-29-624	c14	N73-13417	US-PATENT-CLASS-44-77	c06	N71-23499
US-PATENT-CLASS-29-628	c15	N72-22491	US-PATENT-CLASS-47-1.2	c51	N75-25503
US-PATENT-CLASS-29-628	c09	N72-25261	US-PATENT-CLASS-47-1.4	c31	N73-32750
US-PATENT-CLASS-29-628	c09	N73-28083	US-PATENT-CLASS-47-17	c31	N73-32750
US-PATENT-CLASS-29-628	c33	N77-26385	US-PATENT-CLASS-47-39	c51	N75-25503
US-PATENT-CLASS-29-628	c44	N78-25528	US-PATENT-CLASS-47-58	c51	N75-25503
US-PATENT-CLASS-29-629	c09	N73-28083	US-PATENT-CLASS-48-61	c44	N77-10636
US-PATENT-CLASS-29-630	c09	N73-28083	US-PATENT-CLASS-48-63	c44	N76-18642
US-PATENT-CLASS-29-630A	c05	N72-25121	US-PATENT-CLASS-48-75	c44	N76-18642
US-PATENT-CLASS-29-630A	c09	N73-28083	US-PATENT-CLASS-48-95	c44	N76-18642
US-PATENT-CLASS-29-630E	c33	N77-26385	US-PATENT-CLASS-48-95	c44	N76-29700
US-PATENT-CLASS-30-90.6	c37	N79-10419	US-PATENT-CLASS-48-116	c44	N76-18642
US-PATENT-CLASS-30-228	c15	N70-42017	US-PATENT-CLASS-48-116	c44	N77-10636
US-PATENT-CLASS-32-28	c05	N73-27062	US-PATENT-CLASS-48-117	c44	N76-18642
US-PATENT-CLASS-32-58	c05	N73-27062	US-PATENT-CLASS-48-117	c44	N77-10636
US-PATENT-CLASS-33-DIG.13	c35	N75-12273	US-PATENT-CLASS-48-197R	c44	N76-29704
US-PATENT-CLASS-33-1	c14	N70-36907	US-PATENT-CLASS-48-197R	c44	N77-10636
US-PATENT-CLASS-33-1G	c37	N76-21554	US-PATENT-CLASS-48-212	c44	N77-10636
US-PATENT-CLASS-33-1H	c35	N78-32877	US-PATENT-CLASS-48-215	c44	N76-29700
US-PATENT-CLASS-33-1SA	c14	N72-28436	US-PATENT-CLASS-49-DIG.1	c34	N78-25350
US-PATENT-CLASS-33-1SA	c19	N70-21015	US-PATENT-CLASS-49-68	c18	N78-22136
US-PATENT-CLASS-33-1SA	c08	N72-11172	US-PATENT-CLASS-49-479	c34	N78-25350
US-PATENT-CLASS-33-23R	c35	N78-32877	US-PATENT-CLASS-49-485	c34	N78-25350
US-PATENT-CLASS-33-31	c14	N71-21079	US-PATENT-CLASS-51-57	c15	N71-22705
US-PATENT-CLASS-33-46R	c19	N78-21015	US-PATENT-CLASS-51-97R	c37	N74-27905
US-PATENT-CLASS-33-72	c15	N72-11386	US-PATENT-CLASS-51-170	c15	N71-26134
US-PATENT-CLASS-33-75R	c14	N72-28436	US-PATENT-CLASS-51-216	c15	N72-20444
US-PATENT-CLASS-33-96	c33	N75-30430	US-PATENT-CLASS-51-225	c37	N74-27905
US-PATENT-CLASS-33-125	c14	N72-11364	US-PATENT-CLASS-51-234	c37	N74-27905
US-PATENT-CLASS-33-147	c15	N71-19489	US-PATENT-CLASS-51-235	c37	N78-17383
US-PATENT-CLASS-33-148D	c35	N75-19615	US-PATENT-CLASS-51-283	c46	N74-23069
US-PATENT-CLASS-33-149	c14	N71-17657	US-PATENT-CLASS-51-320	c15	N72-20444
US-PATENT-CLASS-33-155R	c33	N76-19338	US-PATENT-CLASS-51-323	c15	N72-20444
US-PATENT-CLASS-33-174	c14	N69-21363	US-PATENT-CLASS-52-DIG.10	c18	N72-25540
US-PATENT-CLASS-33-174	c14	N71-17658	US-PATENT-CLASS-52-DIG.10	c18	N72-25541
US-PATENT-CLASS-33-174	c14	N71-24693	US-PATENT-CLASS-52-1	c15	N72-28496
US-PATENT-CLASS-33-174B	c37	N76-21554	US-PATENT-CLASS-52-2	c32	N71-21045
US-PATENT-CLASS-33-174D	c33	N76-19338	US-PATENT-CLASS-52-2	c44	N77-32583
US-PATENT-CLASS-33-174S	c14	N72-22445	US-PATENT-CLASS-52-3	c31	N71-16080
US-PATENT-CLASS-33-180R	c35	N75-12273	US-PATENT-CLASS-52-51	c44	N77-31601
US-PATENT-CLASS-33-189	c15	N71-26145	US-PATENT-CLASS-52-64	c31	N73-32749
US-PATENT-CLASS-33-204C	c08	N72-11172	US-PATENT-CLASS-52-71	c18	N75-27040
US-PATENT-CLASS-33-207	c15	N71-15571	US-PATENT-CLASS-52-80	c18	N72-25540
US-PATENT-CLASS-33-268	c89	N74-30886	US-PATENT-CLASS-52-80	c18	N72-25541
US-PATENT-CLASS-33-285	c36	N74-21091	US-PATENT-CLASS-52-80	c31	N73-32749
US-PATENT-CLASS-33-286	c18	N76-14186	US-PATENT-CLASS-52-108	c15	N72-18477
US-PATENT-CLASS-33-356	c04	N76-20114	US-PATENT-CLASS-52-109	c31	N73-32749
US-PATENT-CLASS-33-356	c04	N77-19056	US-PATENT-CLASS-52-117	c44	N77-32582
US-PATENT-CLASS-33-366	c35	N78-32395	US-PATENT-CLASS-52-127	c15	N71-21531
US-PATENT-CLASS-34-15	c28	N78-24365	US-PATENT-CLASS-52-169	c15	N72-25454
US-PATENT-CLASS-34-155	c14	N73-28489	US-PATENT-CLASS-52-171	c11	N73-12265
US-PATENT-CLASS-34-160	c14	N73-28489	US-PATENT-CLASS-52-173	c15	N72-25454
US-PATENT-CLASS-34-162	c14	N73-28489	US-PATENT-CLASS-52-173B	c44	N77-31601
US-PATENT-CLASS-34-162	c35	N74-15831	US-PATENT-CLASS-52-236	c39	N76-31562
US-PATENT-CLASS-35-8	c05	N72-16015	US-PATENT-CLASS-52-249	c33	N71-25351
US-PATENT-CLASS-35-10.2	c14	N71-15621	US-PATENT-CLASS-52-272	c31	N71-24035
US-PATENT-CLASS-35-12	c11	N70-34815	US-PATENT-CLASS-52-284	c32	N73-13921
US-PATENT-CLASS-35-12	c31	N70-34966	US-PATENT-CLASS-52-404	c33	N71-25351
US-PATENT-CLASS-35-12	c11	N71-10746	US-PATENT-CLASS-52-573	c15	N72-28496
US-PATENT-CLASS-35-12	c11	N71-10748	US-PATENT-CLASS-52-594	c15	N72-25454
US-PATENT-CLASS-35-12	c11	N71-10776	US-PATENT-CLASS-52-594	c32	N73-13921
US-PATENT-CLASS-35-12	c11	N71-18773	US-PATENT-CLASS-52-637	c39	N76-31562
US-PATENT-CLASS-35-12	c11	N71-19494	US-PATENT-CLASS-52-646	c31	N73-32749
US-PATENT-CLASS-35-12	c11	N71-21474	US-PATENT-CLASS-52-648	c11	N72-25287
US-PATENT-CLASS-35-12	c18	N76-14186	US-PATENT-CLASS-52-648	c39	N76-31562
US-PATENT-CLASS-35-12C	c14	N73-27377	US-PATENT-CLASS-52-651	c39	N76-31562
US-PATENT-CLASS-35-12C	c09	N75-15662	US-PATENT-CLASS-52-655	c11	N72-25287
US-PATENT-CLASS-35-12C	c74	N79-13855	US-PATENT-CLASS-52-705	c37	N76-19437
US-PATENT-CLASS-35-12E	c09	N74-30597	US-PATENT-CLASS-52-726	c39	N76-31562
US-PATENT-CLASS-35-12N	c09	N76-24280	US-PATENT-CLASS-52-745	c39	N76-31562
US-PATENT-CLASS-35-12N	c09	N78-18083	US-PATENT-CLASS-52-749	c39	N76-31562
US-PATENT-CLASS-35-12N	c74	N79-13855	US-PATENT-CLASS-52-758P	c37	N76-19437
US-PATENT-CLASS-35-17	c05	N71-24606	US-PATENT-CLASS-53-9	c37	N77-23482
US-PATENT-CLASS-35-19	c10	N71-27365	US-PATENT-CLASS-53-22	c15	N71-23256
US-PATENT-CLASS-35-22R	c05	N73-13114	US-PATENT-CLASS-53-22A	c15	N73-27405
US-PATENT-CLASS-35-29	c11	N71-16028	US-PATENT-CLASS-53-102	c15	N71-21528
US-PATENT-CLASS-35-29	c05	N71-28619	US-PATENT-CLASS-53-112A	c15	N73-27405
US-PATENT-CLASS-35-35A	c71	N74-21014	US-PATENT-CLASS-55-DIG.35	c54	N75-27761
US-PATENT-CLASS-35-45	c14	N70-35394	US-PATENT-CLASS-55-2	c25	N78-25148
US-PATENT-CLASS-35-49	c12	N69-39988	US-PATENT-CLASS-55-3	c35	N78-12390
US-PATENT-CLASS-36-92	c54	N78-17675	US-PATENT-CLASS-55-15-8	c52	N79-14749
US-PATENT-CLASS-36-119	c54	N78-17675	US-PATENT-CLASS-55-16	c06	N72-31140
US-PATENT-CLASS-40-28	c12	N71-18603	US-PATENT-CLASS-55-26-9	c35	N78-12390
US-PATENT-CLASS-40-130	c09	N73-14215	US-PATENT-CLASS-55-35	c05	N70-41297
US-PATENT-CLASS-42-1P	c11	N72-22247	US-PATENT-CLASS-55-43	c34	N74-30608
US-PATENT-CLASS-42-215	c44	N76-29704	US-PATENT-CLASS-55-55	c06	N72-31140

NUMBER INDEX

US-PATENT-CLASS-55-67	c23	N77-17161	US-PATENT-CLASS-60-35.54	c28	N70-38645
US-PATENT-CLASS-55-73	c45	N79-12584	US-PATENT-CLASS-60-35.54	c28	N71-29153
US-PATENT-CLASS-55-74	c23	N77-17161	US-PATENT-CLASS-60-35.55	c28	N70-34162
US-PATENT-CLASS-55-75	c15	N71-26185	US-PATENT-CLASS-60-35.55	c28	N70-38711
US-PATENT-CLASS-55-100	c35	N78-12390	US-PATENT-CLASS-60-35.55	c21	N71-15582
US-PATENT-CLASS-55-100	c25	N78-25148	US-PATENT-CLASS-60-35.55	c15	N71-28951
US-PATENT-CLASS-55-101	c25	N78-25148	US-PATENT-CLASS-60-35.60	c28	N71-15659
US-PATENT-CLASS-55-118	c35	N79-17192	US-PATENT-CLASS-60-36	c15	N72-33477
US-PATENT-CLASS-55-122	c35	N79-17192	US-PATENT-CLASS-60-37	c15	N73-13467
US-PATENT-CLASS-55-127	c35	N79-17192	US-PATENT-CLASS-60-39.03	c07	N77-23106
US-PATENT-CLASS-55-155	c35	N79-17192	US-PATENT-CLASS-60-39.07	c44	N78-32539
US-PATENT-CLASS-55-158	c18	N71-20742	US-PATENT-CLASS-60-39.14	c44	N78-32539
US-PATENT-CLASS-55-158	c44	N77-22607	US-PATENT-CLASS-60-39.14	c07	N79-10057
US-PATENT-CLASS-55-159	c34	N78-30608	US-PATENT-CLASS-60-39.23	c20	N76-14190
US-PATENT-CLASS-55-159	c37	N79-21345	US-PATENT-CLASS-60-39.28R	c28	N73-19793
US-PATENT-CLASS-55-160	c15	N71-15968	US-PATENT-CLASS-60-39.28R	c07	N77-23106
US-PATENT-CLASS-55-179	c14	N71-17588	US-PATENT-CLASS-60-39.28R	c37	N78-10467
US-PATENT-CLASS-55-179	c54	N77-32722	US-PATENT-CLASS-60-39.28R	c37	N78-24585
US-PATENT-CLASS-55-197	c23	N77-17161	US-PATENT-CLASS-60-39.28R	c37	N79-11403
US-PATENT-CLASS-55-199	c34	N78-30608	US-PATENT-CLASS-60-39.29	c20	N76-14190
US-PATENT-CLASS-55-204	c15	N71-23023	US-PATENT-CLASS-60-39.29	c35	N76-14431
US-PATENT-CLASS-55-208	c14	N71-18483	US-PATENT-CLASS-60-39.31	c07	N78-18066
US-PATENT-CLASS-55-241	c35	N79-17192	US-PATENT-CLASS-60-39.31	c07	N79-14096
US-PATENT-CLASS-55-242	c35	N79-17192	US-PATENT-CLASS-60-39.33	c44	N78-32539
US-PATENT-CLASS-55-261	c35	N76-18401	US-PATENT-CLASS-60-39.36	c28	N71-20330
US-PATENT-CLASS-55-269	c54	N77-32722	US-PATENT-CLASS-60-39.36	c28	N71-28915
US-PATENT-CLASS-55-306	c28	N70-34788	US-PATENT-CLASS-60-39.46	c27	N71-15635
US-PATENT-CLASS-55-360	c35	N79-17192	US-PATENT-CLASS-60-39.46	c15	N74-27360
US-PATENT-CLASS-55-386	c35	N75-26334	US-PATENT-CLASS-60-39.47	c27	N71-16392
US-PATENT-CLASS-55-400	c11	N71-10777	US-PATENT-CLASS-60-39.48	c28	N70-38199
US-PATENT-CLASS-55-407	c35	N79-17192	US-PATENT-CLASS-60-39.48	c28	N70-39931
US-PATENT-CLASS-55-408	c15	N70-40062	US-PATENT-CLASS-60-39.48	c27	N71-28929
US-PATENT-CLASS-55-418	c15	N71-22721	US-PATENT-CLASS-60-39.51R	c25	N78-10224
US-PATENT-CLASS-55-446	c15	N72-22489	US-PATENT-CLASS-60-39.52	c07	N78-25089
US-PATENT-CLASS-55-464	c15	N72-22489	US-PATENT-CLASS-60-39.65	c28	N71-28915
US-PATENT-CLASS-55-493	c14	N72-23457	US-PATENT-CLASS-60-39.65	c23	N73-30665
US-PATENT-CLASS-55-498	c14	N72-23457	US-PATENT-CLASS-60-39.65	c34	N78-27357
US-PATENT-CLASS-55-502	c14	N72-23457	US-PATENT-CLASS-60-39.66	c15	N70-36411
US-PATENT-CLASS-55-510	c25	N74-12813	US-PATENT-CLASS-60-39.66	c23	N73-30665
US-PATENT-CLASS-55-518	c25	N74-12813	US-PATENT-CLASS-60-39.66	c07	N77-23106
US-PATENT-CLASS-55-521	c14	N72-23457	US-PATENT-CLASS-60-39.66	c37	N78-10467
US-PATENT-CLASS-55-523	c34	N76-27515	US-PATENT-CLASS-60-39.66	c37	N79-11403
US-PATENT-CLASS-55-526	c34	N76-27515	US-PATENT-CLASS-60-39.69R	c34	N78-27357
US-PATENT-CLASS-58-24	c10	N71-26326	US-PATENT-CLASS-60-39.72	c23	N73-30665
US-PATENT-CLASS-60.39.08	c37	N79-11403	US-PATENT-CLASS-60-39.74	c28	N70-33241
US-PATENT-CLASS-60-1	c15	N72-33477	US-PATENT-CLASS-60-39.74	c28	N72-17843
US-PATENT-CLASS-60-1	c15	N73-13467	US-PATENT-CLASS-60-39.74	c20	N79-21125
US-PATENT-CLASS-60-23	c09	N71-26182	US-PATENT-CLASS-60-39.74R	c15	N72-25455
US-PATENT-CLASS-60-23	c15	N72-12409	US-PATENT-CLASS-60-39.74R	c23	N73-30665
US-PATENT-CLASS-60-23	c21	N72-31637	US-PATENT-CLASS-60-39.82E	c20	N76-14190
US-PATENT-CLASS-60-23	c15	N73-13467	US-PATENT-CLASS-60-39.82E	c20	N78-24275
US-PATENT-CLASS-60-25	c15	N73-24513	US-PATENT-CLASS-60-51	c28	N72-11709
US-PATENT-CLASS-60-25	c37	N74-21060	US-PATENT-CLASS-60-53	c15	N71-27754
US-PATENT-CLASS-60-26	c21	N72-31637	US-PATENT-CLASS-60-54.5	c37	N77-22479
US-PATENT-CLASS-60-26	c03	N73-20040	US-PATENT-CLASS-60-97	c15	N71-10658
US-PATENT-CLASS-60-35.3	c28	N70-33265	US-PATENT-CLASS-60-108	c03	N71-12260
US-PATENT-CLASS-60-35.3	c28	N70-40367	US-PATENT-CLASS-60-200	c33	N71-16104
US-PATENT-CLASS-60-35.5	c28	N70-33356	US-PATENT-CLASS-60-200A	c28	N71-14044
US-PATENT-CLASS-60-35.5	c28	N70-34175	US-PATENT-CLASS-60-200A	c33	N72-25911
US-PATENT-CLASS-60-35.5	c22	N70-34248	US-PATENT-CLASS-60-202	c33	N73-25952
US-PATENT-CLASS-60-35.5	c28	N70-36802	US-PATENT-CLASS-60-202	c27	N78-17206
US-PATENT-CLASS-60-35.5	c21	N70-36938	US-PATENT-CLASS-60-202	c28	N70-41922
US-PATENT-CLASS-60-35.5	c25	N70-36946	US-PATENT-CLASS-60-202	c28	N71-10574
US-PATENT-CLASS-60-35.5	c28	N70-37245	US-PATENT-CLASS-60-202	c25	N71-21694
US-PATENT-CLASS-60-35.5	c28	N70-37980	US-PATENT-CLASS-60-202	c28	N71-21822
US-PATENT-CLASS-60-35.5	c28	N71-14043	US-PATENT-CLASS-60-202	c28	N71-23081
US-PATENT-CLASS-60-35.5	c28	N71-15661	US-PATENT-CLASS-60-202	c28	N71-23293
US-PATENT-CLASS-60-35.6	c28	N70-33284	US-PATENT-CLASS-60-202	c28	N71-25213
US-PATENT-CLASS-60-35.6	c28	N70-33331	US-PATENT-CLASS-60-202	c28	N71-26173
US-PATENT-CLASS-60-35.6	c28	N70-33374	US-PATENT-CLASS-60-202	c28	N71-26642
US-PATENT-CLASS-60-35.6	c28	N70-33375	US-PATENT-CLASS-60-202	c28	N71-26781
US-PATENT-CLASS-60-35.6	c28	N70-34860	US-PATENT-CLASS-60-202	c28	N72-11709
US-PATENT-CLASS-60-35.6	c28	N70-35381	US-PATENT-CLASS-60-202	c28	N72-22770
US-PATENT-CLASS-60-35.6	c27	N70-35534	US-PATENT-CLASS-60-202	c28	N72-22771
US-PATENT-CLASS-60-35.6	c15	N70-36535	US-PATENT-CLASS-60-202	c28	N73-24783
US-PATENT-CLASS-60-35.6	c28	N70-36806	US-PATENT-CLASS-60-202	c25	N73-25760
US-PATENT-CLASS-60-35.6	c28	N70-36910	US-PATENT-CLASS-60-202	c28	N73-27699
US-PATENT-CLASS-60-35.6	c28	N70-38249	US-PATENT-CLASS-60-202	c20	N77-10148
US-PATENT-CLASS-60-35.6	c28	N70-38504	US-PATENT-CLASS-60-204	c20	N77-20162
US-PATENT-CLASS-60-35.6	c28	N70-38505	US-PATENT-CLASS-60-211	c07	N78-17055
US-PATENT-CLASS-60-35.6	c28	N70-38710	US-PATENT-CLASS-60-214	c07	N78-18067
US-PATENT-CLASS-60-35.6	c28	N70-39899	US-PATENT-CLASS-60-215	c28	N73-13773
US-PATENT-CLASS-60-35.6	c33	N71-15623	US-PATENT-CLASS-60-215	c15	N74-27360
US-PATENT-CLASS-60-35.6	c27	N71-15634	US-PATENT-CLASS-60-217	c06	N73-30097
US-PATENT-CLASS-60-35.6	c31	N71-15637	US-PATENT-CLASS-60-225	c15	N74-27360
US-PATENT-CLASS-60-35.6	c31	N71-15647	US-PATENT-CLASS-60-226A	c12	N71-17631
US-PATENT-CLASS-60-35.6	c28	N71-15660	US-PATENT-CLASS-60-226A	c28	N71-10780
US-PATENT-CLASS-60-35.6	c14	N71-27186	US-PATENT-CLASS-60-226A	c07	N77-17059
US-PATENT-CLASS-60-35.6	c28	N70-34294		c07	N79-14096

NUMBER INDEX

US-PATENT-CLASS-60-226A	c07 N79-14097	US-PATENT-CLASS-62-6	c23 N72-25619
US-PATENT-CLASS-60-226B	c07 N77-14025	US-PATENT-CLASS-62-6	c37 N76-29590
US-PATENT-CLASS-60-226C	c07 N77-28118	US-PATENT-CLASS-62-6	c44 N76-29701
US-PATENT-CLASS-60-226D	c07 N78-17055	US-PATENT-CLASS-62-7	c15 N73-12486
US-PATENT-CLASS-60-226E	c07 N78-17056	US-PATENT-CLASS-62-15	c06 N70-34946
US-PATENT-CLASS-60-226F	c07 N78-18066	US-PATENT-CLASS-62-40	c15 N71-24044
US-PATENT-CLASS-60-226G	c07 N78-25089	US-PATENT-CLASS-62-45	c15 N70-33323
US-PATENT-CLASS-60-226H	c07 N79-14096	US-PATENT-CLASS-62-45	c31 N70-41871
US-PATENT-CLASS-60-228	c07 N77-17059	US-PATENT-CLASS-62-45	c33 N71-25351
US-PATENT-CLASS-60-230	c07 N78-27121	US-PATENT-CLASS-62-45	c33 N71-28892
US-PATENT-CLASS-60-240	c28 N71-24736	US-PATENT-CLASS-62-45	c15 N73-12486
US-PATENT-CLASS-60-240	c28 N73-13773	US-PATENT-CLASS-62-45	c35 N74-15093
US-PATENT-CLASS-60-243	c33 N71-21507	US-PATENT-CLASS-62-48	c28 N78-24365
US-PATENT-CLASS-60-243	c15 N71-27432	US-PATENT-CLASS-62-49	c31 N76-14284
US-PATENT-CLASS-60-243	c28 N73-13773	US-PATENT-CLASS-62-50	c15 N70-34247
US-PATENT-CLASS-60-243	c20 N79-21124	US-PATENT-CLASS-62-50	c35 N78-12390
US-PATENT-CLASS-60-251	c28 N70-41311	US-PATENT-CLASS-62-51	c15 N72-17453
US-PATENT-CLASS-60-251	c27 N71-21819	US-PATENT-CLASS-62-55	c15 N70-38020
US-PATENT-CLASS-60-254	c28 N72-20758	US-PATENT-CLASS-62-55	c34 N77-30399
US-PATENT-CLASS-60-254	c28 N73-24784	US-PATENT-CLASS-62-55.5	c11 N71-24964
US-PATENT-CLASS-60-256	c28 N73-24784	US-PATENT-CLASS-62-55.5	c15 N72-24844
US-PATENT-CLASS-60-257	c31 N70-41948	US-PATENT-CLASS-62-56	c05 N72-11084
US-PATENT-CLASS-60-258	c15 N70-22192	US-PATENT-CLASS-62-78	c51 N79-10694
US-PATENT-CLASS-60-258	c28 N71-22983	US-PATENT-CLASS-62-80	c23 N72-25619
US-PATENT-CLASS-60-258	c28 N71-28849	US-PATENT-CLASS-62-85	c23 N72-25619
US-PATENT-CLASS-60-258	c28 N72-17843	US-PATENT-CLASS-62-89	c05 N73-26071
US-PATENT-CLASS-60-258	c15 N72-25455	US-PATENT-CLASS-62-93	c15 N69-21465
US-PATENT-CLASS-60-258	c20 N74-13502	US-PATENT-CLASS-62-93	c03 N72-28025
US-PATENT-CLASS-60-259	c28 N70-41275	US-PATENT-CLASS-62-93	c77 N75-20139
US-PATENT-CLASS-60-259	c20 N74-13502	US-PATENT-CLASS-62-100	c34 N77-19353
US-PATENT-CLASS-60-259	c34 N77-30399	US-PATENT-CLASS-62-100	c28 N78-24365
US-PATENT-CLASS-60-260	c28 N70-41992	US-PATENT-CLASS-62-121	c34 N77-19353
US-PATENT-CLASS-60-260	c28 N72-18766	US-PATENT-CLASS-62-129	c31 N76-14284
US-PATENT-CLASS-60-261	c37 N78-17384	US-PATENT-CLASS-62-176	c05 N73-26071
US-PATENT-CLASS-60-262	c37 N78-17384	US-PATENT-CLASS-62-207	c05 N73-26071
US-PATENT-CLASS-60-262	c07 N78-18067	US-PATENT-CLASS-62-209	c05 N73-26071
US-PATENT-CLASS-60-263	c28 N71-24321	US-PATENT-CLASS-62-217	c31 N77-10229
US-PATENT-CLASS-60-263	c07 N77-28118	US-PATENT-CLASS-62-259	c05 N73-20137
US-PATENT-CLASS-60-265	c28 N71-20942	US-PATENT-CLASS-62-259	c05 N73-26071
US-PATENT-CLASS-60-265	c33 N72-25911	US-PATENT-CLASS-62-259	c54 N78-32721
US-PATENT-CLASS-60-265	c33 N73-25952	US-PATENT-CLASS-62-268	c14 N71-20427
US-PATENT-CLASS-60-265	c20 N76-14191	US-PATENT-CLASS-62-268	c34 N79-20336
US-PATENT-CLASS-60-266	c33 N71-28852	US-PATENT-CLASS-62-269	c34 N77-19353
US-PATENT-CLASS-60-266	c28 N72-23810	US-PATENT-CLASS-62-285	c77 N75-20139
US-PATENT-CLASS-60-267	c33 N71-29053	US-PATENT-CLASS-62-288	c77 N75-20139
US-PATENT-CLASS-60-267	c33 N72-25911	US-PATENT-CLASS-62-289	c77 N75-20139
US-PATENT-CLASS-60-267	c33 N73-25952	US-PATENT-CLASS-62-290	c77 N75-20139
US-PATENT-CLASS-60-267	c28 N73-32606	US-PATENT-CLASS-62-315	c34 N77-19353
US-PATENT-CLASS-60-267	c20 N76-14191	US-PATENT-CLASS-62-317	c77 N75-20139
US-PATENT-CLASS-60-267	c34 N79-13288	US-PATENT-CLASS-62-376	c31 N78-17237
US-PATENT-CLASS-60-267	c34 N79-13289	US-PATENT-CLASS-62-376	c34 N79-20336
US-PATENT-CLASS-60-271	c28 N72-11708	US-PATENT-CLASS-62-384	c23 N71-24725
US-PATENT-CLASS-60-271	c28 N72-23810	US-PATENT-CLASS-62-467	c33 N70-37979
US-PATENT-CLASS-60-271	c07 N78-17055	US-PATENT-CLASS-62-467	c33 N71-17897
US-PATENT-CLASS-60-271	c37 N78-17384	US-PATENT-CLASS-62-467	c05 N72-11084
US-PATENT-CLASS-60-291	c31 N73-13898	US-PATENT-CLASS-62-467	c33 N72-25911
US-PATENT-CLASS-60-316	c34 N76-18364	US-PATENT-CLASS-62-467	c33 N73-25952
US-PATENT-CLASS-60-508	c44 N79-18443	US-PATENT-CLASS-62-467	c20 N75-24837
US-PATENT-CLASS-60-516	c20 N75-24837	US-PATENT-CLASS-62-475	c23 N72-25619
US-PATENT-CLASS-60-517	c44 N76-29701	US-PATENT-CLASS-62-514	c23 N71-26654
US-PATENT-CLASS-60-527	c44 N74-33379	US-PATENT-CLASS-62-514JT	c31 N77-10229
US-PATENT-CLASS-60-527	c37 N77-12402	US-PATENT-CLASS-62-514R	c35 N78-12390
US-PATENT-CLASS-60-527	c37 N77-19458	US-PATENT-CLASS-62-514R	c31 N78-17237
US-PATENT-CLASS-60-527	c37 N78-31426	US-PATENT-CLASS-62-514R	c31 N78-25256
US-PATENT-CLASS-60-530	c20 N75-24837	US-PATENT-CLASS-62-514R	c51 N79-10694
US-PATENT-CLASS-60-560	c35 N78-10828	US-PATENT-CLASS-62-514R	c31 N79-17029
US-PATENT-CLASS-60-572	c44 N79-18443	US-PATENT-CLASS-62-514R	c34 N79-20336
US-PATENT-CLASS-60-574	c35 N78-10428	US-PATENT-CLASS-64-18	c15 N71-28467
US-PATENT-CLASS-60-641	c44 N75-32581	US-PATENT-CLASS-64-27	c15 N71-28959
US-PATENT-CLASS-60-641	c44 N77-32582	US-PATENT-CLASS-64-28	c15 N69-27505
US-PATENT-CLASS-60-641	c44 N78-17460	US-PATENT-CLASS-65-DIG.4	c71 N78-10837
US-PATENT-CLASS-60-641	c44 N78-32542	US-PATENT-CLASS-65-DIG.7	c71 N78-10837
US-PATENT-CLASS-60-641	c44 N79-18443	US-PATENT-CLASS-65-DIG.11	c37 N74-21063
US-PATENT-CLASS-60-645	c34 N79-20335	US-PATENT-CLASS-65-2	c71 N78-10837
US-PATENT-CLASS-60-649	c34 N79-20335	US-PATENT-CLASS-65-3	c37 N75-26371
US-PATENT-CLASS-60-659	c44 N75-32581	US-PATENT-CLASS-65-4B	c71 N78-10837
US-PATENT-CLASS-60-659	c44 N76-31667	US-PATENT-CLASS-65-7	c18 N71-23088
US-PATENT-CLASS-60-671	c44 N78-32542	US-PATENT-CLASS-65-30R	c27 N78-32260
US-PATENT-CLASS-60-721	c71 N79-20827	US-PATENT-CLASS-65-32	c71 N78-10837
US-PATENT-CLASS-60-836	c24 N78-14096	US-PATENT-CLASS-65-43	c37 N75-15992
US-PATENT-CLASS-61-83	c18 N74-22136	US-PATENT-CLASS-65-59A	c35 N77-24455
US-PATENT-CLASS-62-2	c15 N71-15906	US-PATENT-CLASS-65-60D	c27 N78-32260
US-PATENT-CLASS-62-3	c20 N75-24837	US-PATENT-CLASS-65-87	c71 N78-10837
US-PATENT-CLASS-62-3	c34 N78-17335	US-PATENT-CLASS-65-102	c71 N78-10837
US-PATENT-CLASS-62-4	c44 N77-32581	US-PATENT-CLASS-65-108	c35 N77-24455
US-PATENT-CLASS-62-4	c44 N78-17460	US-PATENT-CLASS-72-34	c15 N71-21536
US-PATENT-CLASS-62-6	c15 N69-23190	US-PATENT-CLASS-72-46	c24 N75-33181
US-PATENT-CLASS-62-6	c23 N71-15467	US-PATENT-CLASS-72-53	c15 N71-18616
US-PATENT-CLASS-62-6	c15 N71-23025	US-PATENT-CLASS-72-53	c15 N73-32360

NUMBER INDEX

US-PATENT-CLASS-72-54	c37	N76-14461	US-PATENT-CLASS-73-32	c14	N70-41330
US-PATENT-CLASS-72-56	c15	N70-34249	US-PATENT-CLASS-73-32R	c76	N75-12810
US-PATENT-CLASS-72-56	c15	N71-24833	US-PATENT-CLASS-73-35	c33	N72-27959
US-PATENT-CLASS-72-56	c15	N71-24865	US-PATENT-CLASS-73-38	c18	N71-24934
US-PATENT-CLASS-72-56	c15	N71-26148	US-PATENT-CLASS-73-40	c35	N75-15931
US-PATENT-CLASS-72-60	c15	N71-24836	US-PATENT-CLASS-73-40.5	c14	N71-10779
US-PATENT-CLASS-72-61	c15	N71-26346	US-PATENT-CLASS-73-40.7	c15	N71-24910
US-PATENT-CLASS-72-63	c20	N75-18310	US-PATENT-CLASS-73-40.7	c14	N71-28992
US-PATENT-CLASS-72-63	c37	N76-14461	US-PATENT-CLASS-73-40.7	c35	N74-32879
US-PATENT-CLASS-72-83	c15	N71-22723	US-PATENT-CLASS-73-45.5	c12	N71-17573
US-PATENT-CLASS-72-253	c15	N71-22797	US-PATENT-CLASS-73-46	c35	N75-19612
US-PATENT-CLASS-72-258	c15	N73-13464	US-PATENT-CLASS-73-49.2	c32	N71-24285
US-PATENT-CLASS-72-307	c15	N72-12408	US-PATENT-CLASS-73-49.2	c35	N75-15931
US-PATENT-CLASS-72-354	c15	N71-23811	US-PATENT-CLASS-73-49.2	c35	N75-19612
US-PATENT-CLASS-72-363	c37	N76-14461	US-PATENT-CLASS-73-49.3	c14	N71-26672
US-PATENT-CLASS-72-364	c15	N71-18579	US-PATENT-CLASS-73-49.8	c14	N69-27503
US-PATENT-CLASS-72-369	c15	N71-24679	US-PATENT-CLASS-73-49.8	c15	N71-29132
US-PATENT-CLASS-72-447	c15	N73-13463	US-PATENT-CLASS-73-57	c14	N71-17584
US-PATENT-CLASS-72-453	c37	N76-18454	US-PATENT-CLASS-73-57	c14	N73-14429
US-PATENT-CLASS-72-467	c15	N71-23817	US-PATENT-CLASS-73-60	c14	N73-14429
US-PATENT-CLASS-72-476	c15	N73-13463	US-PATENT-CLASS-73-61	c14	N71-26199
US-PATENT-CLASS-73-DIG.11	c35	N78-18390	US-PATENT-CLASS-73-61.1C	c23	N77-17161
US-PATENT-CLASS-73-1	c10	N71-13545	US-PATENT-CLASS-73-61R	c35	N78-27384
US-PATENT-CLASS-73-1	c09	N71-22988	US-PATENT-CLASS-73-65	c14	N71-22992
US-PATENT-CLASS-73-1B	c35	N76-24523	US-PATENT-CLASS-73-67.1	c35	N75-12271
US-PATENT-CLASS-73-1DV	c14	N73-27379	US-PATENT-CLASS-73-67.2	c11	N69-21540
US-PATENT-CLASS-73-1F	c35	N74-21019	US-PATENT-CLASS-73-67.2	c15	N71-18132
US-PATENT-CLASS-73-1R	c14	N71-29134	US-PATENT-CLASS-73-67.2	c14	N72-22440
US-PATENT-CLASS-73-1R	c35	N75-15932	US-PATENT-CLASS-73-67.2	c35	N78-17358
US-PATENT-CLASS-73-1R	c35	N76-15432	US-PATENT-CLASS-73-67.3	c32	N73-26910
US-PATENT-CLASS-73-3	c34	N74-27730	US-PATENT-CLASS-73-67.5R	c38	N74-15395
US-PATENT-CLASS-73-4	c14	N71-18481	US-PATENT-CLASS-73-67.7	c39	N77-28511
US-PATENT-CLASS-73-4	c14	N71-23036	US-PATENT-CLASS-73-67.8S	c35	N74-10415
US-PATENT-CLASS-73-4	c14	N71-23755	US-PATENT-CLASS-73-67.8S	c38	N74-15130
US-PATENT-CLASS-73-4	c14	N73-30390	US-PATENT-CLASS-73-67.9	c52	N74-20726
US-PATENT-CLASS-73-4R	c35	N74-13132	US-PATENT-CLASS-73-69	c71	N74-31148
US-PATENT-CLASS-73-4R	c35	N79-14347	US-PATENT-CLASS-73-70.2	c14	N71-10616
US-PATENT-CLASS-73-4V	c35	N74-15092	US-PATENT-CLASS-73-71.2	c14	N70-38794
US-PATENT-CLASS-73-9	c14	N71-22995	US-PATENT-CLASS-73-71.3	c35	N74-15146
US-PATENT-CLASS-73-9	c35	N76-31489	US-PATENT-CLASS-73-71.4	c32	N71-16428
US-PATENT-CLASS-73-12	c14	N71-23225	US-PATENT-CLASS-73-71.4	c32	N71-26681
US-PATENT-CLASS-73-12	c14	N71-26161	US-PATENT-CLASS-73-71.5R	c71	N74-31148
US-PATENT-CLASS-73-12	c14	N72-16282	US-PATENT-CLASS-73-71.50	c38	N74-15395
US-PATENT-CLASS-73-12	c14	N72-25411	US-PATENT-CLASS-73-71.6	c14	N71-27185
US-PATENT-CLASS-73-12	c14	N73-32327	US-PATENT-CLASS-73-71.6	c14	N72-27412
US-PATENT-CLASS-73-12	c35	N74-21062	US-PATENT-CLASS-73-71.6	c14	N73-13416
US-PATENT-CLASS-73-12	c35	N75-33367	US-PATENT-CLASS-73-71.6	c14	N73-19421
US-PATENT-CLASS-73-12	c75	N76-14931	US-PATENT-CLASS-73-71.6	c35	N77-18417
US-PATENT-CLASS-73-12	c35	N77-18417	US-PATENT-CLASS-73-76	c06	N72-17095
US-PATENT-CLASS-73-15	c14	N70-34156	US-PATENT-CLASS-73-79	c14	N71-26161
US-PATENT-CLASS-73-15	c14	N71-15992	US-PATENT-CLASS-73-81	c14	N73-32321
US-PATENT-CLASS-73-15	c14	N71-22964	US-PATENT-CLASS-73-84	c14	N71-22765
US-PATENT-CLASS-73-15	c11	N71-24985	US-PATENT-CLASS-73-84	c14	N72-21406
US-PATENT-CLASS-73-15	c11	N71-28629	US-PATENT-CLASS-73-84	c14	N73-19420
US-PATENT-CLASS-73-15.4	c14	N71-17659	US-PATENT-CLASS-73-84	c35	N77-27367
US-PATENT-CLASS-73-15.4	c35	N74-32879	US-PATENT-CLASS-73-85	c14	N72-33377
US-PATENT-CLASS-73-15.6	c14	N70-35368	US-PATENT-CLASS-73-86	c14	N69-39975
US-PATENT-CLASS-73-15.6	c14	N71-24234	US-PATENT-CLASS-73-86	c33	N71-21586
US-PATENT-CLASS-73-15.6	c14	N71-26136	US-PATENT-CLASS-73-86	c33	N73-27796
US-PATENT-CLASS-73-15.6	c32	N72-25877	US-PATENT-CLASS-73-86	c34	N74-15652
US-PATENT-CLASS-73-15.6	c09	N74-19528	US-PATENT-CLASS-73-88	c32	N71-17645
US-PATENT-CLASS-73-15.6	c35	N76-24523	US-PATENT-CLASS-73-88.5	c14	N70-34705
US-PATENT-CLASS-73-15.6	c35	N77-22450	US-PATENT-CLASS-73-88.5	c14	N70-34799
US-PATENT-CLASS-73-15.6	c39	N78-10493	US-PATENT-CLASS-73-88.5	c14	N71-17656
US-PATENT-CLASS-73-15R	c33	N72-25913	US-PATENT-CLASS-73-88.5	c14	N71-21091
US-PATENT-CLASS-73-15R	c14	N73-28486	US-PATENT-CLASS-73-88.5	c14	N71-23087
US-PATENT-CLASS-73-15R	c25	N74-18551	US-PATENT-CLASS-73-88.5	c14	N71-24233
US-PATENT-CLASS-73-15R	c31	N74-27900	US-PATENT-CLASS-73-88.5	c09	N72-22200
US-PATENT-CLASS-73-15R	c09	N77-27131	US-PATENT-CLASS-73-88.5	c33	N75-31329
US-PATENT-CLASS-73-17	c06	N71-24607	US-PATENT-CLASS-73-88.5	c38	N76-28563
US-PATENT-CLASS-73-23	c14	N71-10774	US-PATENT-CLASS-73-88.5R	c15	N72-17452
US-PATENT-CLASS-73-23	c05	N71-11202	US-PATENT-CLASS-73-88.5R	c32	N73-26910
US-PATENT-CLASS-73-23	c52	N74-20728	US-PATENT-CLASS-73-88.5R	c52	N74-27864
US-PATENT-CLASS-73-23	c35	N75-29380	US-PATENT-CLASS-73-88.5R	c35	N76-14430
US-PATENT-CLASS-73-23	c25	N78-15210	US-PATENT-CLASS-73-88.5SD	c33	N76-19338
US-PATENT-CLASS-73-23	c35	N78-19465	US-PATENT-CLASS-73-88A	c32	N73-20740
US-PATENT-CLASS-73-23.1	c06	N69-39936	US-PATENT-CLASS-73-88F	c39	N78-15512
US-PATENT-CLASS-73-23.1	c06	N72-17094	US-PATENT-CLASS-73-88R	c35	N74-13129
US-PATENT-CLASS-73-23.1	c06	N72-25146	US-PATENT-CLASS-73-88R	c35	N77-22849
US-PATENT-CLASS-73-23.1	c25	N76-18245	US-PATENT-CLASS-73-88R	c39	N77-28511
US-PATENT-CLASS-73-23.1	c23	N77-17161	US-PATENT-CLASS-73-90	c32	N70-42003
US-PATENT-CLASS-73-24	c06	N69-39733	US-PATENT-CLASS-73-90	c32	N71-25360
US-PATENT-CLASS-73-28	c14	N73-27376	US-PATENT-CLASS-73-90	c14	N73-20476
US-PATENT-CLASS-73-28	c14	N73-30395	US-PATENT-CLASS-73-91	c14	N73-20476
US-PATENT-CLASS-73-28	c35	N76-18401	US-PATENT-CLASS-73-91	c32	N73-26910
US-PATENT-CLASS-73-28	c35	N78-18390	US-PATENT-CLASS-73-91	c09	N74-19528
US-PATENT-CLASS-73-29	c14	N71-17701	US-PATENT-CLASS-73-91	c39	N78-10493
US-PATENT-CLASS-73-29	c14	N71-20741	US-PATENT-CLASS-73-94	c14	N73-32323
US-PATENT-CLASS-73-30	c14	N70-41681	US-PATENT-CLASS-73-95	c15	N71-24834

NUMBER INDEX

US-PATENT-CLASS-73-95	.....	c14	N72-11364	US-PATENT-CLASS-73-170R	.....	c14	N73-32327
US-PATENT-CLASS-73-95	.....	c35	N76-18400	US-PATENT-CLASS-73-170R	.....	c33	N74-27862
US-PATENT-CLASS-73-95	.....	c35	N77-22450	US-PATENT-CLASS-73-170R	.....	c35	N75-33367
US-PATENT-CLASS-73-95	.....	c31	N79-11246	US-PATENT-CLASS-73-170R	.....	c91	N76-30131
US-PATENT-CLASS-73-97	.....	c14	N71-15600	US-PATENT-CLASS-73-178	.....	c14	N70-36807
US-PATENT-CLASS-73-99	.....	c14	N71-10781	US-PATENT-CLASS-73-178	.....	c14	N70-40157
US-PATENT-CLASS-73-100	.....	c15	N70-41993	US-PATENT-CLASS-73-178R	.....	c35	N75-29381
US-PATENT-CLASS-73-100	.....	c32	N72-25877	US-PATENT-CLASS-73-178R	.....	c04	N77-19056
US-PATENT-CLASS-73-103	.....	c15	N71-17696	US-PATENT-CLASS-73-178R	.....	c37	N78-27424
US-PATENT-CLASS-73-103	.....	c14	N72-27412	US-PATENT-CLASS-73-180	.....	c35	N78-14364
US-PATENT-CLASS-73-103	.....	c14	N73-32323	US-PATENT-CLASS-73-182	.....	c14	N73-13415
US-PATENT-CLASS-73-103	.....	c35	N76-18400	US-PATENT-CLASS-73-182	.....	c35	N74-32878
US-PATENT-CLASS-73-104	.....	c35	N74-32879	US-PATENT-CLASS-73-182	.....	c35	N76-14429
US-PATENT-CLASS-73-105	.....	c14	N70-34161	US-PATENT-CLASS-73-189	.....	c20	N71-16281
US-PATENT-CLASS-73-105	.....	c14	N71-17586	US-PATENT-CLASS-73-189	.....	c02	N71-23007
US-PATENT-CLASS-73-115	.....	c35	N79-14345	US-PATENT-CLASS-73-189	.....	c14	N71-23726
US-PATENT-CLASS-73-116	.....	c11	N70-33278	US-PATENT-CLASS-73-189	.....	c14	N73-13415
US-PATENT-CLASS-73-116	.....	c11	N70-34844	US-PATENT-CLASS-73-189	.....	c14	N73-25460
US-PATENT-CLASS-73-116	.....	c14	N70-40203	US-PATENT-CLASS-73-189	.....	c35	N76-24524
US-PATENT-CLASS-73-116	.....	c11	N70-41677	US-PATENT-CLASS-73-189	.....	c34	N76-27517
US-PATENT-CLASS-73-116	.....	c11	N71-10604	US-PATENT-CLASS-73-189	.....	c34	N77-27345
US-PATENT-CLASS-73-116	.....	c31	N71-15643	US-PATENT-CLASS-73-189	.....	c34	N79-12359
US-PATENT-CLASS-73-117	.....	c14	N71-22965	US-PATENT-CLASS-73-190	.....	c33	N71-15641
US-PATENT-CLASS-73-117.1	.....	c11	N72-27262	US-PATENT-CLASS-73-190	.....	c14	N71-22989
US-PATENT-CLASS-73-117.4	.....	c14	N71-20429	US-PATENT-CLASS-73-190	.....	c33	N71-23085
US-PATENT-CLASS-73-117.4	.....	c28	N71-27094	US-PATENT-CLASS-73-190	.....	c33	N71-29051
US-PATENT-CLASS-73-117.4	.....	c35	N75-29382	US-PATENT-CLASS-73-190H	.....	c35	N74-22095
US-PATENT-CLASS-73-133	.....	c14	N71-23725	US-PATENT-CLASS-73-190R	.....	c34	N74-27859
US-PATENT-CLASS-73-133	.....	c15	N72-22482	US-PATENT-CLASS-73-194	.....	c14	N70-41994
US-PATENT-CLASS-73-133R	.....	c35	N77-14407	US-PATENT-CLASS-73-194	.....	c14	N71-23226
US-PATENT-CLASS-73-134	.....	c14	N70-40201	US-PATENT-CLASS-73-194	.....	c12	N71-26546
US-PATENT-CLASS-73-136	.....	c14	N70-34818	US-PATENT-CLASS-73-194A	.....	c14	N72-17329
US-PATENT-CLASS-73-136R	.....	c15	N72-26371	US-PATENT-CLASS-73-194E	.....	c14	N73-20478
US-PATENT-CLASS-73-140	.....	c11	N72-25288	US-PATENT-CLASS-73-194E	.....	c05	N73-32015
US-PATENT-CLASS-73-141	.....	c14	N70-41957	US-PATENT-CLASS-73-194EH	.....	c14	N73-32326
US-PATENT-CLASS-73-141	.....	c15	N71-20441	US-PATENT-CLASS-73-194EH	.....	c35	N74-21018
US-PATENT-CLASS-73-141	.....	c14	N71-23790	US-PATENT-CLASS-73-194F	.....	c14	N72-11365
US-PATENT-CLASS-73-141	.....	c26	N71-25490	US-PATENT-CLASS-73-194H	.....	c05	N73-32015
US-PATENT-CLASS-73-141A	.....	c14	N72-21405	US-PATENT-CLASS-73-194H	.....	c35	N75-30503
US-PATENT-CLASS-73-141A	.....	c14	N72-22437	US-PATENT-CLASS-73-194R	.....	c34	N76-27517
US-PATENT-CLASS-73-141A	.....	c35	N74-26945	US-PATENT-CLASS-73-194VS	.....	c34	N79-12359
US-PATENT-CLASS-73-141A	.....	c35	N74-27865	US-PATENT-CLASS-73-195	.....	c35	N75-30503
US-PATENT-CLASS-73-141A	.....	c35	N75-33369	US-PATENT-CLASS-73-198	.....	c14	N69-24257
US-PATENT-CLASS-73-141AB	.....	c14	N72-33377	US-PATENT-CLASS-73-198	.....	c14	N72-17327
US-PATENT-CLASS-73-142	.....	c15	N70-40180	US-PATENT-CLASS-73-204	.....	c12	N71-17569
US-PATENT-CLASS-73-142	.....	c14	N71-20439	US-PATENT-CLASS-73-204	.....	c35	N76-24524
US-PATENT-CLASS-73-143	.....	c35	N75-19615	US-PATENT-CLASS-73-204	.....	c35	N77-20800
US-PATENT-CLASS-73-143	.....	c14	N75-24794	US-PATENT-CLASS-73-212	.....	c14	N70-36824
US-PATENT-CLASS-73-144	.....	c15	N71-22878	US-PATENT-CLASS-73-212	.....	c14	N73-13415
US-PATENT-CLASS-73-147	.....	c11	N70-33287	US-PATENT-CLASS-73-212	.....	c35	N76-14429
US-PATENT-CLASS-73-147	.....	c14	N70-33386	US-PATENT-CLASS-73-221	.....	c35	N75-19611
US-PATENT-CLASS-73-147	.....	c14	N70-34813	US-PATENT-CLASS-73-228	.....	c34	N77-27345
US-PATENT-CLASS-73-147	.....	c11	N70-36913	US-PATENT-CLASS-73-290	.....	c14	N71-10500
US-PATENT-CLASS-73-147	.....	c14	N70-40400	US-PATENT-CLASS-73-290	.....	c14	N71-21007
US-PATENT-CLASS-73-147	.....	c14	N70-41366	US-PATENT-CLASS-73-290B	.....	c14	N72-11363
US-PATENT-CLASS-73-147	.....	c11	N71-15926	US-PATENT-CLASS-73-295	.....	c23	N71-17802
US-PATENT-CLASS-73-147	.....	c09	N71-16086	US-PATENT-CLASS-73-295	.....	c31	N76-18284
US-PATENT-CLASS-73-147	.....	c12	N71-20436	US-PATENT-CLASS-73-301	.....	c12	N71-26387
US-PATENT-CLASS-73-147	.....	c09	N71-20816	US-PATENT-CLASS-73-304	.....	c14	N72-22442
US-PATENT-CLASS-73-147	.....	c11	N71-21481	US-PATENT-CLASS-73-304C	.....	c14	N71-29134
US-PATENT-CLASS-73-147	.....	c11	N71-23030	US-PATENT-CLASS-73-336.5	.....	c35	N78-25391
US-PATENT-CLASS-73-147	.....	c15	N71-27006	US-PATENT-CLASS-73-339	.....	c33	N73-27796
US-PATENT-CLASS-73-147	.....	c15	N71-28740	US-PATENT-CLASS-73-341	.....	c14	N71-15598
US-PATENT-CLASS-73-147	.....	c11	N71-33612	US-PATENT-CLASS-73-343	.....	c33	N71-16356
US-PATENT-CLASS-73-147	.....	c11	N72-17183	US-PATENT-CLASS-73-343	.....	c11	N71-21475
US-PATENT-CLASS-73-147	.....	c14	N72-21407	US-PATENT-CLASS-73-343R	.....	c52	N77-10780
US-PATENT-CLASS-73-147	.....	c11	N72-22246	US-PATENT-CLASS-73-355	.....	c14	N71-27323
US-PATENT-CLASS-73-147	.....	c11	N73-12264	US-PATENT-CLASS-73-355	.....	c14	N72-28437
US-PATENT-CLASS-73-147	.....	c14	N73-13415	US-PATENT-CLASS-73-355R	.....	c14	N72-24477
US-PATENT-CLASS-73-147	.....	c12	N73-25262	US-PATENT-CLASS-73-356	.....	c35	N75-25122
US-PATENT-CLASS-73-147	.....	c12	N73-28144	US-PATENT-CLASS-73-362AR	.....	c35	N77-27368
US-PATENT-CLASS-73-147	.....	c09	N74-17955	US-PATENT-CLASS-73-379	.....	c05	N73-27941
US-PATENT-CLASS-73-147	.....	c34	N74-27730	US-PATENT-CLASS-73-379	.....	c05	N73-30078
US-PATENT-CLASS-73-147	.....	c09	N75-12969	US-PATENT-CLASS-73-379	.....	c35	N75-15932
US-PATENT-CLASS-73-147	.....	c09	N76-23273	US-PATENT-CLASS-73-382	.....	c10	N71-13537
US-PATENT-CLASS-73-147	.....	c34	N76-27517	US-PATENT-CLASS-73-382	.....	c14	N71-17587
US-PATENT-CLASS-73-147	.....	c09	N77-10071	US-PATENT-CLASS-73-384	.....	c15	N70-37925
US-PATENT-CLASS-73-147	.....	c09	N78-31129	US-PATENT-CLASS-73-388	.....	c35	N74-32878
US-PATENT-CLASS-73-147	.....	c35	N79-14347	US-PATENT-CLASS-73-389	.....	c12	N71-24692
US-PATENT-CLASS-73-147	.....	c09	N79-21083	US-PATENT-CLASS-73-398	.....	c14	N70-34816
US-PATENT-CLASS-73-149	.....	c14	N72-11363	US-PATENT-CLASS-73-398	.....	c14	N71-21072
US-PATENT-CLASS-73-149	.....	c52	N74-10975	US-PATENT-CLASS-73-398	.....	c09	N71-24597
US-PATENT-CLASS-73-159	.....	c31	N79-11246	US-PATENT-CLASS-73-398	.....	c14	N73-30394
US-PATENT-CLASS-73-161	.....	c11	N72-25288	US-PATENT-CLASS-73-398AR	.....	c52	N74-27566
US-PATENT-CLASS-73-170	.....	c14	N71-14996	US-PATENT-CLASS-73-398AR	.....	c52	N76-29896
US-PATENT-CLASS-73-170	.....	c17	N73-32415	US-PATENT-CLASS-73-398C	.....	c14	N72-22438
US-PATENT-CLASS-73-170A	.....	c35	N78-27384	US-PATENT-CLASS-73-398C	.....	c33	N76-21390
US-PATENT-CLASS-73-170R	.....	c07	N73-20175	US-PATENT-CLASS-73-399	.....	c37	N76-18454
US-PATENT-CLASS-73-170R	.....	c14	N73-28487	US-PATENT-CLASS-73-400	.....	c14	N71-23093

NUMBER INDEX

```

US-PATENT-CLASS-73-400 .....
US-PATENT-CLASS-73-401 .....
US-PATENT-CLASS-73-419 .....
US-PATENT-CLASS-73-420 .....
US-PATENT-CLASS-73-421.5 .....
US-PATENT-CLASS-73-421.5R .....
US-PATENT-CLASS-73-421.5R .....
US-PATENT-CLASS-73-421.5R .....
US-PATENT-CLASS-73-421.5R .....
US-PATENT-CLASS-73-421R .....
US-PATENT-CLASS-73-422 .....
US-PATENT-CLASS-73-422GC .....
US-PATENT-CLASS-73-422TC .....
US-PATENT-CLASS-73-425.2 .....
US-PATENT-CLASS-73-425.4R .....
US-PATENT-CLASS-73-425.6 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432 .....
US-PATENT-CLASS-73-432PS .....
US-PATENT-CLASS-73-432PS .....
US-PATENT-CLASS-73-432PS .....
US-PATENT-CLASS-73-432R .....
US-PATENT-CLASS-73-432R .....
US-PATENT-CLASS-73-432R .....
US-PATENT-CLASS-73-432R .....
US-PATENT-CLASS-73-432R .....
US-PATENT-CLASS-73-432SD .....
US-PATENT-CLASS-73-432SD .....
US-PATENT-CLASS-73-432SD .....
US-PATENT-CLASS-73-456 .....
US-PATENT-CLASS-73-492 .....
US-PATENT-CLASS-73-493 .....
US-PATENT-CLASS-73-497 .....
US-PATENT-CLASS-73-497 .....
US-PATENT-CLASS-73-505 .....
US-PATENT-CLASS-73-505 .....
US-PATENT-CLASS-73-505 .....
US-PATENT-CLASS-73-505 .....
US-PATENT-CLASS-73-515 .....
US-PATENT-CLASS-73-517 .....
US-PATENT-CLASS-73-517 .....
US-PATENT-CLASS-73-517 .....
US-PATENT-CLASS-73-517B .....
US-PATENT-CLASS-73-517R .....
US-PATENT-CLASS-73-521 .....
US-PATENT-CLASS-73-557 .....
US-PATENT-CLASS-73-557 .....
US-PATENT-CLASS-73-579 .....
US-PATENT-CLASS-73-579 .....
US-PATENT-CLASS-73-589 .....
US-PATENT-CLASS-73-603 .....
US-PATENT-CLASS-73-630 .....
US-PATENT-CLASS-73-632 .....
US-PATENT-CLASS-73-633 .....
US-PATENT-CLASS-73-641 .....
US-PATENT-CLASS-73-644 .....
US-PATENT-CLASS-73-644 .....
US-PATENT-CLASS-73-646 .....
US-PATENT-CLASS-73-714 .....
US-PATENT-CLASS-73-721 .....
US-PATENT-CLASS-73-756 .....
US-PATENT-CLASS-73-756 .....
US-PATENT-CLASS-74-2 .....
US-PATENT-CLASS-74-2 .....
US-PATENT-CLASS-74-5.5 .....
US-PATENT-CLASS-74-5.6 .....
US-PATENT-CLASS-74-5.7 .....
US-PATENT-CLASS-74-5.7 .....
US-PATENT-CLASS-74-5.12 .....
US-PATENT-CLASS-74-5.22 .....
US-PATENT-CLASS-74-5.34 .....
US-PATENT-CLASS-74-5.47 .....
US-PATENT-CLASS-74-5F .....
US-PATENT-CLASS-74-18.2 .....
US-PATENT-CLASS-74-63 .....
US-PATENT-CLASS-74-81 .....
US-PATENT-CLASS-74-83 .....
US-PATENT-CLASS-74-89.15 .....
US-PATENT-CLASS-74-89.15 .....

```

c14 871-24232
c14 870-34820
c14 871-22752
c35 874-13132
c14 873-12444
c13 872-25323
c14 873-30395
c52 874-20728
c35 876-18401
c35 877-32456
c54 876-14804
c14 871-20435
c13 872-25323
c13 872-25323
c91 876-30133
c35 878-27384
c15 872-21465
c11 870-34786
c11 870-38675
c05 870-42000
c31 871-16221
c27 871-16223
c30 871-17788
c14 871-23227
c10 871-26339
c11 871-28629
c14 871-30026
c35 878-21062
c76 875-12810
c35 875-33367
c35 878-18390
c33 873-27796
c14 873-28487
c91 876-30131
c35 877-19385
c35 878-18390
c11 872-27262
c11 873-20267
c35 877-18417
c35 878-24515
c14 872-25411
c17 876-29347
c14 871-30265
c35 874-15094
c23 871-16098
c12 875-24774
c71 878-10837
c71 878-20827
c14 872-25410
c11 870-38196
c14 870-41682
c14 871-15969
c35 874-15094
c17 876-29347
c14 872-25410
c35 876-19614
c07 876-27232
c39 878-15512
c35 879-10390
c35 879-10390
c38 878-32444
c39 878-15512
c38 879-14398
c52 879-14751
c38 879-14398
c38 879-14398
c52 879-14751
c71 878-14867
c35 879-14347
c35 879-14347
c35 878-24515
c35 879-14347
c15 871-24600
c31 873-14855
c35 874-28097
c35 874-15094
c35 874-18323
c15 876-14158
c31 871-26537
c21 873-13644
c04 876-26175
c21 871-23289
c15 873-12488
c11 871-27036
c15 871-17692
c37 878-16369
c37 878-16369
c15 871-26635
c15 872-21462

US-PATENT-CLASS-74-89.18
US-PATENT-CLASS-74-96
US-PATENT-CLASS-74-100
US-PATENT-CLASS-74-100B
US-PATENT-CLASS-74-105
US-PATENT-CLASS-74-126
US-PATENT-CLASS-74-217E
US-PATENT-CLASS-74-384
US-PATENT-CLASS-74-385
US-PATENT-CLASS-74-409
US-PATENT-CLASS-74-471
US-PATENT-CLASS-74-424.8
US-PATENT-CLASS-74-424.8
US-PATENT-CLASS-74-436
US-PATENT-CLASS-74-468
US-PATENT-CLASS-74-469
US-PATENT-CLASS-74-469
US-PATENT-CLASS-74-471
US-PATENT-CLASS-74-471
US-PATENT-CLASS-74-471
US-PATENT-CLASS-74-471XY
US-PATENT-CLASS-74-480B
US-PATENT-CLASS-74-501E
US-PATENT-CLASS-74-515E
US-PATENT-CLASS-74-519
US-PATENT-CLASS-74-572
US-PATENT-CLASS-74-572
US-PATENT-CLASS-74-572
US-PATENT-CLASS-74-586
US-PATENT-CLASS-74-594.6
US-PATENT-CLASS-74-594.7
US-PATENT-CLASS-74-665B
US-PATENT-CLASS-74-674
US-PATENT-CLASS-74-675
US-PATENT-CLASS-74-705
US-PATENT-CLASS-74-710
US-PATENT-CLASS-74-764
US-PATENT-CLASS-74-800
US-PATENT-CLASS-74-820
US-PATENT-CLASS-75-.5B
US-PATENT-CLASS-75-DIG.1
US-PATENT-CLASS-75-DIG.1
US-PATENT-CLASS-75-0.5BB
US-PATENT-CLASS-75-20F
US-PATENT-CLASS-75-63
US-PATENT-CLASS-75-65R
US-PATENT-CLASS-75-66
US-PATENT-CLASS-75-66
US-PATENT-CLASS-75-66
US-PATENT-CLASS-75-122.7
US-PATENT-CLASS-75-124
US-PATENT-CLASS-75-126D
US-PATENT-CLASS-75-126F
US-PATENT-CLASS-75-128G
US-PATENT-CLASS-75-128T
US-PATENT-CLASS-75-134D
US-PATENT-CLASS-75-135
US-PATENT-CLASS-75-135
US-PATENT-CLASS-75-135
US-PATENT-CLASS-75-142
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-170
US-PATENT-CLASS-75-171
US-PATENT-CLASS-75-171
US-PATENT-CLASS-75-171
US-PATENT-CLASS-75-171
US-PATENT-CLASS-75-172
US-PATENT-CLASS-75-173
US-PATENT-CLASS-75-173
US-PATENT-CLASS-75-173
US-PATENT-CLASS-75-173
US-PATENT-CLASS-75-173A
US-PATENT-CLASS-75-173B
US-PATENT-CLASS-75-173C
US-PATENT-CLASS-75-173D
US-PATENT-CLASS-75-173E
US-PATENT-CLASS-75-173F
US-PATENT-CLASS-75-173G
US-PATENT-CLASS-75-173H
US-PATENT-CLASS-75-173I
US-PATENT-CLASS-75-173J
US-PATENT-CLASS-75-173K
US-PATENT-CLASS-75-173L
US-PATENT-CLASS-75-173M
US-PATENT-CLASS-75-173N
US-PATENT-CLASS-75-173O
US-PATENT-CLASS-75-173P
US-PATENT-CLASS-75-173Q
US-PATENT-CLASS-75-173R
US-PATENT-CLASS-75-173S
US-PATENT-CLASS-75-173T
US-PATENT-CLASS-75-173U
US-PATENT-CLASS-75-173V
US-PATENT-CLASS-75-173W
US-PATENT-CLASS-75-173X
US-PATENT-CLASS-75-173Y
US-PATENT-CLASS-75-173Z
US-PATENT-CLASS-75-200
US-PATENT-CLASS-75-200
US-PATENT-CLASS-75-200
US-PATENT-CLASS-75-200
US-PATENT-CLASS-75-202
US-PATENT-CLASS-75-203
US-PATENT-CLASS-75-204
US-PATENT-CLASS-75-205
US-PATENT-CLASS-75-206
US-PATENT-CLASS-75-206
US-PATENT-CLASS-75-208
US-PATENT-CLASS-75-208R

c15 n71-23809
c37 n77-22482
c15 n71-21405
c37 n78-31426
c09 n72-22195
c15 n71-21529
c37 n74-23070
c37 n76-15470
c07 n78-17056
c15 n71-21744
c07 n78-17056
c15 n71-26635
c37 n75-15050
c37 n75-13266
c15 n71-24984
c15 n72-21466
c15 n72-28495
c05 n70-41581
c03 n70-42073
c15 n71-20740
c54 n75-27760
c05 n75-12930
c15 n72-22485
c54 n78-17676
c03 n70-41954
c07 n78-33101
c37 n79-10422
c44 n79-14527
c37 n79-14382
c37 n74-18127
c37 n74-18127
c37 n76-15457
c37 n79-20377
c37 n74-27901
c37 n79-20377
c37 n74-27901
c37 n79-20377
c37 n78-17385
c37 n75-13266
c17 n72-22530
c18 n72-25539
c37 n75-26371
c15 n72-25448
c15 n72-11387
c15 n71-21784
c24 n77-21787
c17 n71-26773
c06 n73-13129
c17 n73-28573
c37 n77-19458
c26 n78-18182
c26 n78-18182
c26 n78-18182
c26 n78-18182
c26 n78-18182
c76 n79-16678
c18 n73-32437
c24 n77-27187
c24 n77-27187
c17 n71-20743
c17 n71-15644
c17 n71-16025
c17 n71-23248
c17 n72-22535
c37 n77-19458
c26 n77-20201
c26 n77-32279
c26 n77-32280
c26 n78-18183
c17 n70-36616
c17 n71-16026
c17 n73-32415
c17 n71-23365
c26 n75-27126
c26 n75-27127
c04 n76-20114
c26 n74-10521
c37 n74-13179
c24 n75-13032
c37 n75-26371
c17 n71-15468
c27 n79-14213
c18 n71-22894
c27 n79-14213
c15 n72-25484
c27 n79-14213
c18 n72-25339
c37 n75-26371

NUMBER INDEX

US-PATENT-CLASS-75-211	c18	N72-25539	US-PATENT-CLASS-93-1	c15	N70-33180
US-PATENT-CLASS-75-212	c37	N75-26371	US-PATENT-CLASS-95-1.1	c14	N72-18411
US-PATENT-CLASS-75-212	c27	N79-14213	US-PATENT-CLASS-95-1.1	c14	N73-26431
US-PATENT-CLASS-75-213	c15	N72-25448	US-PATENT-CLASS-95-11	c14	N71-18465
US-PATENT-CLASS-75-213	c37	N74-13179	US-PATENT-CLASS-95-11	c16	N71-33410
US-PATENT-CLASS-75-214	c37	N74-13179	US-PATENT-CLASS-95-11	c14	N73-32319
US-PATENT-CLASS-75-214	c37	N75-26371	US-PATENT-CLASS-95-11.5	c14	N73-32319
US-PATENT-CLASS-75-222	c28	N70-38197	US-PATENT-CLASS-95-11.5R	c14	N73-19419
US-PATENT-CLASS-75-222	c37	N75-26371	US-PATENT-CLASS-95-11R	c14	N73-19419
US-PATENT-CLASS-75-225	c34	N76-27515	US-PATENT-CLASS-95-12	c14	N73-33361
US-PATENT-CLASS-75-226	c18	N72-25539	US-PATENT-CLASS-95-12.5	c31	N72-25842
US-PATENT-CLASS-75-226	c26	N74-10521	US-PATENT-CLASS-95-12.5	c14	N73-14427
US-PATENT-CLASS-75-226	c37	N74-13179	US-PATENT-CLASS-95-18	c14	N72-20380
US-PATENT-CLASS-75-226	c27	N79-14213	US-PATENT-CLASS-95-42	c14	N73-32322
US-PATENT-CLASS-75-229	c27	N78-17206	US-PATENT-CLASS-95-44	c14	N71-26474
US-PATENT-CLASS-75-239	c27	N78-17206	US-PATENT-CLASS-95-53	c15	N71-21060
US-PATENT-CLASS-75-241	c27	N78-17206	US-PATENT-CLASS-95-53EA	c33	N70-20861
US-PATENT-CLASS-78-1	c15	N70-33330	US-PATENT-CLASS-95-58	c14	N70-40273
US-PATENT-CLASS-81-3R	c15	N71-29133	US-PATENT-CLASS-95-59	c14	N73-14427
US-PATENT-CLASS-81-9.5R	c37	N79-10419	US-PATENT-CLASS-95-89R	c35	N74-15831
US-PATENT-CLASS-81-56	c37	N76-20480	US-PATENT-CLASS-96-27R	c35	N79-10389
US-PATENT-CLASS-81-57.31	c37	N76-20480	US-PATENT-CLASS-96-36.2	c06	N72-21094
US-PATENT-CLASS-81-57.38	c15	N73-30457	US-PATENT-CLASS-96-36.2	c15	N72-25452
US-PATENT-CLASS-81-63.1	c15	N71-17805	US-PATENT-CLASS-96-38.3	c35	N74-26946
US-PATENT-CLASS-81-90P	c37	N79-14383	US-PATENT-CLASS-96-49	c14	N71-17574
US-PATENT-CLASS-81-119	c37	N79-14383	US-PATENT-CLASS-96-60R	c35	N79-10389
US-PATENT-CLASS-81-180B	c37	N79-14383	US-PATENT-CLASS-96-79	c35	N74-26946
US-PATENT-CLASS-82-14	c15	N71-22722	US-PATENT-CLASS-96-87A	c27	N78-14164
US-PATENT-CLASS-82-24R	c14	N72-16283	US-PATENT-CLASS-96-90PC	c14	N72-22443
US-PATENT-CLASS-83-8	c15	N72-27485	US-PATENT-CLASS-98-1	c54	N78-17679
US-PATENT-CLASS-83-451	c37	N77-14478	US-PATENT-CLASS-98-1	c54	N79-27665
US-PATENT-CLASS-83-452	c39	N74-13131	US-PATENT-CLASS-98-1.5	c44	N78-32539
US-PATENT-CLASS-83-467	c15	N71-22798	US-PATENT-CLASS-98-39	c31	N74-27902
US-PATENT-CLASS-83-467R	c37	N77-14478	US-PATENT-CLASS-98-50	c45	N79-10570
US-PATENT-CLASS-83-522	c15	N72-27485	US-PATENT-CLASS-99-80PS	c05	N72-33096
US-PATENT-CLASS-83-562	c15	N72-27485	US-PATENT-CLASS-100-8	c33	N74-17928
US-PATENT-CLASS-83-563	c15	N72-27485	US-PATENT-CLASS-100-299	c15	N72-20446
US-PATENT-CLASS-83-588	c15	N72-27485	US-PATENT-CLASS-102-28EB	c28	N74-27425
US-PATENT-CLASS-83-602	c39	N74-13131	US-PATENT-CLASS-102-28R	c28	N79-11231
US-PATENT-CLASS-83-917	c39	N74-13131	US-PATENT-CLASS-102-34.4	c07	N72-25171
US-PATENT-CLASS-85-1	c15	N72-22488	US-PATENT-CLASS-102-39	c20	N78-24275
US-PATENT-CLASS-85-3	c15	N71-17653	US-PATENT-CLASS-102-49	c33	N70-36846
US-PATENT-CLASS-85-5B	c15	N72-11385	US-PATENT-CLASS-102-49	c28	N70-38181
US-PATENT-CLASS-85-7	c15	N71-23254	US-PATENT-CLASS-102-49	c03	N70-39930
US-PATENT-CLASS-85-33	c15	N71-15922	US-PATENT-CLASS-102-49	c15	N70-41679
US-PATENT-CLASS-85-33	c15	N71-21489	US-PATENT-CLASS-102-49	c28	N70-41967
US-PATENT-CLASS-86-1	c28	N71-26779	US-PATENT-CLASS-102-49	c31	N71-10582
US-PATENT-CLASS-86-1R	c28	N77-10213	US-PATENT-CLASS-102-49	c15	N71-13789
US-PATENT-CLASS-86-1B	c20	N77-17143	US-PATENT-CLASS-102-49	c31	N71-15692
US-PATENT-CLASS-86-20.2	c28	N71-26779	US-PATENT-CLASS-102-49	c31	N71-17730
US-PATENT-CLASS-86-20R	c20	N77-17143	US-PATENT-CLASS-102-49.3	c20	N77-17143
US-PATENT-CLASS-88-1	c21	N70-35427	US-PATENT-CLASS-102-49.5	c31	N71-15687
US-PATENT-CLASS-88-14	c21	N71-22880	US-PATENT-CLASS-102-49.5	c15	N71-22874
US-PATENT-CLASS-88-14	c14	N70-34298	US-PATENT-CLASS-102-49.5	c31	N71-23008
US-PATENT-CLASS-88-14	c14	N70-40003	US-PATENT-CLASS-102-49.5	c31	N73-14853
US-PATENT-CLASS-88-14	c14	N70-41946	US-PATENT-CLASS-102-49.7	c28	N73-24784
US-PATENT-CLASS-88-14	c14	N70-41955	US-PATENT-CLASS-102-49.7	c20	N78-24275
US-PATENT-CLASS-88-14	c09	N71-22999	US-PATENT-CLASS-102-49.8	c28	N73-24784
US-PATENT-CLASS-88-16	c14	N70-33254	US-PATENT-CLASS-102-50	c31	N71-24750
US-PATENT-CLASS-88-24	c23	N71-21882	US-PATENT-CLASS-102-70.2	c09	N71-18599
US-PATENT-CLASS-89-1	c03	N70-34667	US-PATENT-CLASS-102-70.2A	c28	N74-27425
US-PATENT-CLASS-89-1	c15	N71-16078	US-PATENT-CLASS-102-70.2R	c19	N74-15089
US-PATENT-CLASS-89-1.5	c31	N71-15675	US-PATENT-CLASS-102-70-2R	c28	N74-27425
US-PATENT-CLASS-89-1.5	c15	N71-24600	US-PATENT-CLASS-102-70R	c20	N78-24275
US-PATENT-CLASS-89-1.7	c11	N70-38202	US-PATENT-CLASS-102-90	c15	N74-27360
US-PATENT-CLASS-89-1.7	c30	N70-40353	US-PATENT-CLASS-102-95	c11	N73-32152
US-PATENT-CLASS-89-1.7	c03	N71-12258	US-PATENT-CLASS-102-99	c28	N77-10213
US-PATENT-CLASS-89-1.7	c03	N71-12259	US-PATENT-CLASS-102-101	c28	N71-26779
US-PATENT-CLASS-89-1.801	c20	N76-22296	US-PATENT-CLASS-102-103	c20	N78-32179
US-PATENT-CLASS-89-1.806	c15	N71-24043	US-PATENT-CLASS-102-105	c33	N72-17947
US-PATENT-CLASS-89-1.811	c15	N72-17455	US-PATENT-CLASS-102-105	c33	N72-25911
US-PATENT-CLASS-89-8	c11	N71-18578	US-PATENT-CLASS-102-105	c33	N73-25952
US-PATENT-CLASS-89-8	c11	N73-32152	US-PATENT-CLASS-102-105	c27	N74-27037
US-PATENT-CLASS-89-8	c75	N76-14931	US-PATENT-CLASS-103.5R	c04	N73-27052
US-PATENT-CLASS-89-8	c75	N76-17951	US-PATENT-CLASS-103-1	c26	N71-21824
US-PATENT-CLASS-89-8	c09	N79-21084	US-PATENT-CLASS-103-37	c28	N71-14058
US-PATENT-CLASS-89-8	c15	N71-33518	US-PATENT-CLASS-103-48	c15	N71-24042
US-PATENT-CLASS-90-11	c15	N71-22799	US-PATENT-CLASS-104-1	c05	N71-28619
US-PATENT-CLASS-90-12	c37	N74-25968	US-PATENT-CLASS-104-23FS	c85	N74-34672
US-PATENT-CLASS-91-186	c05	N73-32014	US-PATENT-CLASS-104-138R	c85	N74-34672
US-PATENT-CLASS-91-361	c15	N71-27754	US-PATENT-CLASS-104-139	c05	N71-28619
US-PATENT-CLASS-91-363A	c15	N73-13466	US-PATENT-CLASS-106-13	c23	N75-14834
US-PATENT-CLASS-91-390	c15	N71-27147	US-PATENT-CLASS-106-15	c18	N71-14014
US-PATENT-CLASS-91-390	c15	N71-27754	US-PATENT-CLASS-106-15	c18	N71-15469
US-PATENT-CLASS-91-448	c15	N71-27754	US-PATENT-CLASS-106-15FP	c27	N74-27037
US-PATENT-CLASS-91-448	c15	N73-13466	US-PATENT-CLASS-106-15FP	c27	N76-24405
US-PATENT-CLASS-91-461	c15	N71-27147	US-PATENT-CLASS-106-15FP	c24	N78-15180
US-PATENT-CLASS-92-49	c14	N73-13418	US-PATENT-CLASS-106-15R	c23	N75-14834
US-PATENT-CLASS-92-94	c32	N70-41370	US-PATENT-CLASS-106-39	c26	N72-28762

NUMBER INDEX

US-PATENT-CLASS-106-39.5	c27 N78-19302	US-PATENT-CLASS-117-107	c15 N72-25447
US-PATENT-CLASS-106-39R	c18 N73-14584	US-PATENT-CLASS-117-107	c76 N79-16678
US-PATENT-CLASS-106-40	c18 N71-22998	US-PATENT-CLASS-117-107.2	c25 N75-26043
US-PATENT-CLASS-106-43	c27 N78-17206	US-PATENT-CLASS-117-119	c18 N71-16105
US-PATENT-CLASS-106-46	c26 N72-28762	US-PATENT-CLASS-117-119	c76 N79-16678
US-PATENT-CLASS-106-48	c27 N75-27160	US-PATENT-CLASS-117-124C	c15 N72-25452
US-PATENT-CLASS-106-48	c27 N78-32260	US-PATENT-CLASS-117-124F	c23 N75-14834
US-PATENT-CLASS-106-52	c37 N74-21063	US-PATENT-CLASS-117-126GH	c37 N75-26371
US-PATENT-CLASS-106-54	c27 N75-27160	US-PATENT-CLASS-117-126GR	c27 N74-23125
US-PATENT-CLASS-106-54	c27 N76-22377	US-PATENT-CLASS-117-126R	c37 N75-26371
US-PATENT-CLASS-106-54	c27 N76-23426	US-PATENT-CLASS-117-129	c37 N74-21063
US-PATENT-CLASS-106-54	c27 N78-32260	US-PATENT-CLASS-117-129	c27 N75-27160
US-PATENT-CLASS-106-55	c17 N71-20941	US-PATENT-CLASS-117-130R	c15 N73-32360
US-PATENT-CLASS-106-55	c18 N73-14584	US-PATENT-CLASS-117-132	c06 N72-25150
US-PATENT-CLASS-106-58	c18 N73-14584	US-PATENT-CLASS-117-132B	c27 N74-23125
US-PATENT-CLASS-106-63	c18 N73-14584	US-PATENT-CLASS-117-135.5	c23 N75-14834
US-PATENT-CLASS-106-65	c27 N78-19302	US-PATENT-CLASS-117-138.8R	c15 N73-32360
US-PATENT-CLASS-106-73.5	c27 N78-19302	US-PATENT-CLASS-117-151	c15 N73-32360
US-PATENT-CLASS-106-74	c18 N69-39979	US-PATENT-CLASS-117-152	c15 N72-25452
US-PATENT-CLASS-106-84	c18 N71-24183	US-PATENT-CLASS-117-160R	c15 N73-32360
US-PATENT-CLASS-106-84	c18 N71-24184	US-PATENT-CLASS-117-161	c06 N72-25150
US-PATENT-CLASS-106-84	c18 N72-22566	US-PATENT-CLASS-117-161P	c06 N73-27980
US-PATENT-CLASS-106-84	c18 N72-23581	US-PATENT-CLASS-117-1610A	c25 N75-12087
US-PATENT-CLASS-106-84	c24 N79-14156	US-PATENT-CLASS-117-1610U	c06 N73-27980
US-PATENT-CLASS-106-88	c18 N71-16124	US-PATENT-CLASS-117-1610U	c27 N74-23125
US-PATENT-CLASS-106-209	c05 N72-25120	US-PATENT-CLASS-117-1610U	c25 N75-12087
US-PATENT-CLASS-106-286	c18 N72-22566	US-PATENT-CLASS-117-1610Z	c25 N75-12087
US-PATENT-CLASS-106-287SB	c23 N75-14834	US-PATENT-CLASS-117-200	c09 N72-25259
US-PATENT-CLASS-106-288B	c18 N72-22566	US-PATENT-CLASS-117-201	c15 N69-21460
US-PATENT-CLASS-106-292	c18 N72-17532	US-PATENT-CLASS-117-201	c18 N71-16046
US-PATENT-CLASS-106-292	c27 N77-30237	US-PATENT-CLASS-117-201	c03 N72-24037
US-PATENT-CLASS-106-296	c18 N71-26772	US-PATENT-CLASS-117-201	c25 N75-26043
US-PATENT-CLASS-106-296	c27 N77-30237	US-PATENT-CLASS-117-211	c15 N72-25447
US-PATENT-CLASS-106-296	c24 N79-14156	US-PATENT-CLASS-117-212	c09 N71-20705
US-PATENT-CLASS-106-299	c18 N72-17532	US-PATENT-CLASS-117-212	c15 N71-29032
US-PATENT-CLASS-106-299	c27 N77-30237	US-PATENT-CLASS-117-212	c26 N72-28762
US-PATENT-CLASS-106-306	c24 N76-24363	US-PATENT-CLASS-117-217	c15 N72-25447
US-PATENT-CLASS-108-136	c09 N75-12968	US-PATENT-CLASS-117-217	c26 N72-28762
US-PATENT-CLASS-110-184	c45 N79-10570	US-PATENT-CLASS-117-224	c15 N71-28582
US-PATENT-CLASS-112-402	c18 N71-26285	US-PATENT-CLASS-117-228	c06 N73-27980
US-PATENT-CLASS-113-116	c15 N71-15597	US-PATENT-CLASS-117-234	c76 N79-16678
US-PATENT-CLASS-114-16.6	c37 N76-22540	US-PATENT-CLASS-117-235	c76 N79-16678
US-PATENT-CLASS-114-66.5	c12 N70-33305	US-PATENT-CLASS-117-237	c76 N79-16678
US-PATENT-CLASS-114-122	c02 N73-26006	US-PATENT-CLASS-117-239	c76 N79-16678
US-PATENT-CLASS-114-187	c45 N79-10570	US-PATENT-CLASS-117-240	c76 N79-16678
US-PATENT-CLASS-115-103.5	c51 N75-13502	US-PATENT-CLASS-118-6	c51 N77-27677
US-PATENT-CLASS-116-114.5	c35 N75-25122	US-PATENT-CLASS-118-7	c51 N77-27677
US-PATENT-CLASS-116-114AE	c14 N72-25411	US-PATENT-CLASS-118-9	c51 N77-27677
US-PATENT-CLASS-116-114AB	c35 N75-33367	US-PATENT-CLASS-118-11	c15 N71-17647
US-PATENT-CLASS-116-117	c14 N70-42074	US-PATENT-CLASS-118-43	c25 N75-29192
US-PATENT-CLASS-117-2R	c32 N74-27612	US-PATENT-CLASS-118-48	c25 N75-26043
US-PATENT-CLASS-117-6	c14 N71-20861	US-PATENT-CLASS-118-49.1	c15 N72-32487
US-PATENT-CLASS-117-8.5	c24 N75-33181	US-PATENT-CLASS-118-49.1	c31 N75-12161
US-PATENT-CLASS-117-16R	c15 N72-25452	US-PATENT-CLASS-118-49.1	c25 N75-26043
US-PATENT-CLASS-117-21	c18 N69-39895	US-PATENT-CLASS-118-49.5	c09 N71-26701
US-PATENT-CLASS-117-33.3	c70 N74-13436	US-PATENT-CLASS-118-50	c37 N78-17383
US-PATENT-CLASS-117-35	c32 N79-19186	US-PATENT-CLASS-118-308	c17 N71-24911
US-PATENT-CLASS-117-35R	c06 N73-13128	US-PATENT-CLASS-118-313	c51 N77-27677
US-PATENT-CLASS-117-37	c15 N72-25452	US-PATENT-CLASS-118-500	c37 N78-17383
US-PATENT-CLASS-117-38	c24 N75-33181	US-PATENT-CLASS-119-15	c11 N71-22875
US-PATENT-CLASS-117-43	c31 N79-21227	US-PATENT-CLASS-119-29	c51 N78-27733
US-PATENT-CLASS-117-45	c74 N74-20008	US-PATENT-CLASS-119-51.5	c51 N78-15778
US-PATENT-CLASS-117-46	c15 N71-16077	US-PATENT-CLASS-119-51.11	c35 N78-19466
US-PATENT-CLASS-117-46FS	c24 N75-33181	US-PATENT-CLASS-119-51.13	c51 N74-15778
US-PATENT-CLASS-117-47R	c15 N72-25452	US-PATENT-CLASS-119-51R	c51 N74-15778
US-PATENT-CLASS-117-50	c15 N71-15610	US-PATENT-CLASS-119-52AF	c51 N74-15778
US-PATENT-CLASS-117-62	c15 N72-25447	US-PATENT-CLASS-119-54	c51 N74-15778
US-PATENT-CLASS-117-62	c15 N72-25452	US-PATENT-CLASS-119-72.5	c35 N78-19466
US-PATENT-CLASS-117-65.2	c18 N71-10772	US-PATENT-CLASS-119-96	c05 N71-28619
US-PATENT-CLASS-117-66	c15 N73-32360	US-PATENT-CLASS-121-38	c15 N70-35409
US-PATENT-CLASS-117-69	c18 N70-36400	US-PATENT-CLASS-121-38	c02 N71-29128
US-PATENT-CLASS-117-69	c15 N71-16075	US-PATENT-CLASS-122-32	c33 N72-20915
US-PATENT-CLASS-117-72	c35 N75-25122	US-PATENT-CLASS-123-DIG.8	c37 N77-31497
US-PATENT-CLASS-117-93.16D	c25 N75-12087	US-PATENT-CLASS-123-DIG.12	c37 N76-18457
US-PATENT-CLASS-117-93.3	c15 N72-25452	US-PATENT-CLASS-123-DIG.12	c44 N78-33526
US-PATENT-CLASS-117-93.3	c37 N75-15992	US-PATENT-CLASS-123-1A	c44 N76-29700
US-PATENT-CLASS-117-93.16D	c15 N72-25447	US-PATENT-CLASS-123-1A	c44 N78-33526
US-PATENT-CLASS-117-95	c24 N74-19769	US-PATENT-CLASS-123-3	c44 N76-18642
US-PATENT-CLASS-117-95	c36 N75-15029	US-PATENT-CLASS-123-3	c44 N76-29700
US-PATENT-CLASS-117-97	c36 N75-15029	US-PATENT-CLASS-123-3	c44 N77-10636
US-PATENT-CLASS-117-104	c18 N71-26100	US-PATENT-CLASS-123-3	c37 N77-31497
US-PATENT-CLASS-117-105	c15 N73-32360	US-PATENT-CLASS-123-3	c44 N78-33526
US-PATENT-CLASS-117-105.2	c37 N74-11301	US-PATENT-CLASS-123-37	c37 N77-31497
US-PATENT-CLASS-117-105.2	c24 N75-33181	US-PATENT-CLASS-123-41.33	c07 N77-23106
US-PATENT-CLASS-117-105.5	c15 N73-32360	US-PATENT-CLASS-123-41.33	c37 N78-10467
US-PATENT-CLASS-117-106	c33 N71-14032	US-PATENT-CLASS-123-59R	c37 N77-31497
US-PATENT-CLASS-117-106A	c70 N74-13436	US-PATENT-CLASS-123-89A	c37 N76-18457
US-PATENT-CLASS-117-106A	c37 N75-15992	US-PATENT-CLASS-123-102	c11 N72-20244
US-PATENT-CLASS-117-106A	c25 N75-26043	US-PATENT-CLASS-123-119A	c37 N77-31497

NUMBER INDEX

US-PATENT-CLASS-123-119R	c37	N76-18457	US-PATENT-CLASS-128-2.05S	c52	N74-26626
US-PATENT-CLASS-123-120	c37	N76-18457	US-PATENT-CLASS-128-2.05T	c52	N74-12778
US-PATENT-CLASS-123-121	c37	N76-18457	US-PATENT-CLASS-128-2.05V	c35	N76-24525
US-PATENT-CLASS-123-122AB	c28	N72-22772	US-PATENT-CLASS-128-2.05Z	c54	N75-27760
US-PATENT-CLASS-123-122AB	c37	N77-31497	US-PATENT-CLASS-128-2.05Z	c52	N79-18580
US-PATENT-CLASS-123-122B	c07	N77-23106	US-PATENT-CLASS-128-2.06	c05	N69-21925
US-PATENT-CLASS-123-122B	c37	N78-10867	US-PATENT-CLASS-128-2.06	c05	N71-22896
US-PATENT-CLASS-123-148CB	c33	N77-28385	US-PATENT-CLASS-128-2.06	c09	N71-24618
US-PATENT-CLASS-123-148DC	c37	N79-11405	US-PATENT-CLASS-128-2.06	c05	N71-26293
US-PATENT-CLASS-123-148E	c33	N77-28385	US-PATENT-CLASS-128-2.06B	c05	N75-24716
US-PATENT-CLASS-123-148E	c37	N79-11405	US-PATENT-CLASS-128-2.06E	c52	N76-29896
US-PATENT-CLASS-124-1	c75	N76-17951	US-PATENT-CLASS-128-2.06F	c52	N74-12778
US-PATENT-CLASS-124-6	c09	N77-19076	US-PATENT-CLASS-128-2.06R	c05	N73-27941
US-PATENT-CLASS-124-11R	c75	N76-17951	US-PATENT-CLASS-128-2.06R	c52	N76-14757
US-PATENT-CLASS-125-1	c46	N74-23069	US-PATENT-CLASS-128-2.07	c05	N73-32015
US-PATENT-CLASS-125-3	c46	N74-23069	US-PATENT-CLASS-128-2.07	c52	N74-20728
US-PATENT-CLASS-126-91A	c25	N79-11151	US-PATENT-CLASS-128-2.08	c05	N69-21873
US-PATENT-CLASS-126-263	c44	N77-32581	US-PATENT-CLASS-128-2.08	c05	N73-32015
US-PATENT-CLASS-126-263	c44	N78-17460	US-PATENT-CLASS-128-2.08	c52	N74-20728
US-PATENT-CLASS-126-270	c09	N70-40234	US-PATENT-CLASS-128-2P	c54	N76-14804
US-PATENT-CLASS-126-270	c03	N70-41580	US-PATENT-CLASS-128-2H	c52	N76-14757
US-PATENT-CLASS-126-270	c34	N78-23039	US-PATENT-CLASS-128-2H	c52	N76-29894
US-PATENT-CLASS-126-270	c44	N76-14595	US-PATENT-CLASS-128-2H	c52	N77-10780
US-PATENT-CLASS-126-270	c44	N76-23675	US-PATENT-CLASS-128-2H	c52	N77-14736
US-PATENT-CLASS-126-270	c44	N76-24696	US-PATENT-CLASS-128-2N	c05	N72-25122
US-PATENT-CLASS-126-270	c35	N77-20401	US-PATENT-CLASS-128-2N	c05	N73-13114
US-PATENT-CLASS-126-270	c44	N77-32582	US-PATENT-CLASS-128-2P	c52	N76-29894
US-PATENT-CLASS-126-270	c44	N78-15560	US-PATENT-CLASS-128-2R	c09	N72-22202
US-PATENT-CLASS-126-270	c44	N78-19599	US-PATENT-CLASS-128-2R	c52	N79-12694
US-PATENT-CLASS-126-270	c44	N78-31526	US-PATENT-CLASS-128-2S	c52	N74-10975
US-PATENT-CLASS-126-270	c44	N79-11471	US-PATENT-CLASS-128-2S	c52	N74-27864
US-PATENT-CLASS-126-270	c44	N79-14526	US-PATENT-CLASS-128-2S	c33	N75-31329
US-PATENT-CLASS-126-271	c44	N75-32581	US-PATENT-CLASS-128-2S	c33	N76-19338
US-PATENT-CLASS-126-271	c44	N76-14602	US-PATENT-CLASS-128-2S	c52	N76-29895
US-PATENT-CLASS-126-271	c44	N76-22657	US-PATENT-CLASS-128-2S	c52	N76-29896
US-PATENT-CLASS-126-271	c44	N76-24696	US-PATENT-CLASS-128-2V	c52	N74-20726
US-PATENT-CLASS-126-271	c35	N77-20401	US-PATENT-CLASS-128-2V	c35	N75-12271
US-PATENT-CLASS-126-271	c44	N77-32582	US-PATENT-CLASS-128-2V	c54	N75-27760
US-PATENT-CLASS-126-271	c44	N78-10554	US-PATENT-CLASS-128-2V	c52	N79-14751
US-PATENT-CLASS-126-271	c44	N78-17460	US-PATENT-CLASS-128-2V	c52	N79-18580
US-PATENT-CLASS-126-271	c44	N78-31525	US-PATENT-CLASS-128-24	c05	N71-24738
US-PATENT-CLASS-126-271	c44	N78-31526	US-PATENT-CLASS-128-24A	c05	N73-27062
US-PATENT-CLASS-126-271	c44	N79-11471	US-PATENT-CLASS-128-24A	c54	N75-27760
US-PATENT-CLASS-126-271	c44	N79-14526	US-PATENT-CLASS-128-25	c05	N71-24738
US-PATENT-CLASS-126-271	c44	N79-14529	US-PATENT-CLASS-128-25R	c37	N74-18127
US-PATENT-CLASS-126-271	c44	N79-18443	US-PATENT-CLASS-128-26	c52	N76-19785
US-PATENT-CLASS-126-400	c44	N78-15560	US-PATENT-CLASS-128-29	c05	N70-39922
US-PATENT-CLASS-128-2.06E	c05	N75-24716	US-PATENT-CLASS-128-92C	c27	N78-17215
US-PATENT-CLASS-128-2.07	c52	N79-21750	US-PATENT-CLASS-128-92G	c27	N78-17215
US-PATENT-CLASS-128-DIG.4	c05	N72-27103	US-PATENT-CLASS-128-142.2	c54	N76-29900
US-PATENT-CLASS-128-DIG.4	c05	N75-24716	US-PATENT-CLASS-128-142.5	c05	N71-11190
US-PATENT-CLASS-128-DIG.4	c35	N76-24525	US-PATENT-CLASS-128-142.5	c05	N71-11203
US-PATENT-CLASS-128-DIG.4	c52	N77-28717	US-PATENT-CLASS-128-142.5	c05	N71-17599
US-PATENT-CLASS-128-DIG.12	c37	N77-28487	US-PATENT-CLASS-128-142.5	c05	N72-20096
US-PATENT-CLASS-128-DIG.20	c52	N76-19785	US-PATENT-CLASS-128-142.5	c05	N73-25125
US-PATENT-CLASS-128-1	c05	N70-41819	US-PATENT-CLASS-128-142.7	c54	N78-32721
US-PATENT-CLASS-128-1	c05	N71-20268	US-PATENT-CLASS-128-145.8	c54	N75-27761
US-PATENT-CLASS-128-1A	c05	N73-32012	US-PATENT-CLASS-128-191R	c25	N78-12813
US-PATENT-CLASS-128-1R	c52	N77-25772	US-PATENT-CLASS-128-203	c54	N76-24900
US-PATENT-CLASS-128-1R	c52	N77-28716	US-PATENT-CLASS-128-206F	c14	N73-24473
US-PATENT-CLASS-128-2	c05	N73-27062	US-PATENT-CLASS-128-214D	c52	N79-14749
US-PATENT-CLASS-128-2.1	c05	N71-11193	US-PATENT-CLASS-128-214E	c52	N74-22771
US-PATENT-CLASS-128-2.1	c05	N71-12346	US-PATENT-CLASS-128-214F	c37	N77-28487
US-PATENT-CLASS-128-2.1	c05	N71-24729	US-PATENT-CLASS-128-230	c52	N75-33640
US-PATENT-CLASS-128-2.1	c09	N71-26002	US-PATENT-CLASS-128-272	c15	N71-28835
US-PATENT-CLASS-128-2.1	c05	N72-25120	US-PATENT-CLASS-128-272	c52	N79-14749
US-PATENT-CLASS-128-2.1A	c09	N72-17153	US-PATENT-CLASS-128-275	c15	N71-28835
US-PATENT-CLASS-128-2.1A	c09	N72-22202	US-PATENT-CLASS-128-283	c05	N69-23192
US-PATENT-CLASS-128-2.1A	c52	N78-26625	US-PATENT-CLASS-128-295	c05	N72-22093
US-PATENT-CLASS-128-2.1A	c52	N76-14757	US-PATENT-CLASS-128-303R	c52	N77-28716
US-PATENT-CLASS-128-2.1A	c52	N76-29894	US-PATENT-CLASS-128-305	c05	N73-27062
US-PATENT-CLASS-128-2.1A	c52	N79-18580	US-PATENT-CLASS-128-305	c52	N75-33640
US-PATENT-CLASS-128-2.1E	c05	N72-27103	US-PATENT-CLASS-128-305	c52	N78-14773
US-PATENT-CLASS-128-2.1E	c35	N76-24525	US-PATENT-CLASS-128-379	c52	N77-14736
US-PATENT-CLASS-128-2.1E	c52	N77-28717	US-PATENT-CLASS-128-400	c52	N77-14736
US-PATENT-CLASS-128-2.1R	c05	N73-26072	US-PATENT-CLASS-128-402	c05	N72-20096
US-PATENT-CLASS-128-2.12	c35	N76-24525	US-PATENT-CLASS-128-402	c52	N77-14736
US-PATENT-CLASS-128-2.05	c05	N70-41329	US-PATENT-CLASS-128-410	c52	N77-28717
US-PATENT-CLASS-128-2.05	c04	N71-23185	US-PATENT-CLASS-128-417	c05	N72-25120
US-PATENT-CLASS-128-2.05	c05	N71-27234	US-PATENT-CLASS-128-417	c05	N72-27103
US-PATENT-CLASS-128-2.05A	c52	N74-26626	US-PATENT-CLASS-128-418	c52	N76-29896
US-PATENT-CLASS-128-2.05A	c54	N75-13531	US-PATENT-CLASS-128-418	c52	N77-14738
US-PATENT-CLASS-128-2.05E	c52	N74-27566	US-PATENT-CLASS-128-419P	c52	N76-29896
US-PATENT-CLASS-128-2.05E	c52	N76-29896	US-PATENT-CLASS-129-16.7	c08	N71-15908
US-PATENT-CLASS-128-2.05F	c14	N73-32326	US-PATENT-CLASS-134-21	c37	N76-18456
US-PATENT-CLASS-128-2.05F	c54	N75-13531	US-PATENT-CLASS-134-37	c37	N76-18456
US-PATENT-CLASS-128-2.05R	c05	N73-27941	US-PATENT-CLASS-135-1	c32	N70-36536
US-PATENT-CLASS-128-2.05R	c52	N76-29895	US-PATENT-CLASS-136-6	c03	N71-26084
US-PATENT-CLASS-128-2.05R	c52	N79-10724	US-PATENT-CLASS-136-6	c03	N72-15986

NUMBER INDEX

US-PATENT-CLASS-136-61P	.....	c44	N76-18643	US-PATENT-CLASS-136-202	.....	c35	N77-32454
US-PATENT-CLASS-136-20	.....	c44	N74-19693	US-PATENT-CLASS-136-202	.....	c35	N79-14346
US-PATENT-CLASS-136-24	.....	c09	N73-32108	US-PATENT-CLASS-136-206	.....	c03	N72-11062
US-PATENT-CLASS-136-28	.....	c03	N71-10608	US-PATENT-CLASS-136-206	.....	c09	N72-12136
US-PATENT-CLASS-136-30	.....	c44	N74-19693	US-PATENT-CLASS-136-206	.....	c44	N76-14595
US-PATENT-CLASS-136-30	.....	c44	N76-18643	US-PATENT-CLASS-136-206	.....	c44	N76-31666
US-PATENT-CLASS-136-30	.....	c44	N76-29699	US-PATENT-CLASS-136-210	.....	c44	N76-16612
US-PATENT-CLASS-136-36	.....	c44	N74-19692	US-PATENT-CLASS-136-211	.....	c35	N76-15434
US-PATENT-CLASS-136-79	.....	c03	N72-20032	US-PATENT-CLASS-136-212	.....	c35	N76-15434
US-PATENT-CLASS-136-81	.....	c03	N72-20032	US-PATENT-CLASS-136-213	.....	c14	N69-27459
US-PATENT-CLASS-136-83	.....	c03	N71-28579	US-PATENT-CLASS-136-213	.....	c34	N74-27861
US-PATENT-CLASS-136-83R	.....	c03	N72-20034	US-PATENT-CLASS-136-224	.....	c14	N73-12447
US-PATENT-CLASS-136-83R	.....	c44	N76-18641	US-PATENT-CLASS-136-225	.....	c14	N73-24472
US-PATENT-CLASS-136-86	.....	c03	N71-11052	US-PATENT-CLASS-136-225	.....	c35	N76-15434
US-PATENT-CLASS-136-86	.....	c03	N71-20904	US-PATENT-CLASS-136-227	.....	c09	N72-12136
US-PATENT-CLASS-136-86	.....	c15	N71-23022	US-PATENT-CLASS-136-228	.....	c33	N71-15568
US-PATENT-CLASS-136-86	.....	c03	N71-29044	US-PATENT-CLASS-136-230	.....	c14	N71-23039
US-PATENT-CLASS-136-86A	.....	c44	N76-27664	US-PATENT-CLASS-136-230	.....	c34	N74-27861
US-PATENT-CLASS-136-86S	.....	c44	N76-18641	US-PATENT-CLASS-136-232	.....	c35	N77-14409
US-PATENT-CLASS-136-89	.....	c03	N69-24267	US-PATENT-CLASS-136-233	.....	c14	N72-27410
US-PATENT-CLASS-136-89	.....	c03	N71-11049	US-PATENT-CLASS-136-233	.....	c14	N73-13417
US-PATENT-CLASS-136-89	.....	c03	N71-11050	US-PATENT-CLASS-136-233	.....	c34	N74-27861
US-PATENT-CLASS-136-89	.....	c03	N71-11056	US-PATENT-CLASS-136-233	.....	c35	N77-14409
US-PATENT-CLASS-136-89	.....	c03	N71-18698	US-PATENT-CLASS-136-236	.....	c35	N79-14386
US-PATENT-CLASS-136-89	.....	c03	N71-19545	US-PATENT-CLASS-136-236R	.....	c35	N77-32454
US-PATENT-CLASS-136-89	.....	c03	N71-20492	US-PATENT-CLASS-136-240	.....	c35	N77-32454
US-PATENT-CLASS-136-89	.....	c03	N71-20895	US-PATENT-CLASS-137-DIG.9	.....	c54	N76-24900
US-PATENT-CLASS-136-89	.....	c26	N71-23043	US-PATENT-CLASS-137-1	.....	c12	N70-38997
US-PATENT-CLASS-136-89	.....	c03	N71-23187	US-PATENT-CLASS-137-1	.....	c15	N73-27406
US-PATENT-CLASS-136-89	.....	c03	N71-23449	US-PATENT-CLASS-137-13	.....	c15	N71-15967
US-PATENT-CLASS-136-89	.....	c03	N71-33409	US-PATENT-CLASS-137-13	.....	c15	N72-33477
US-PATENT-CLASS-136-89	.....	c03	N72-20031	US-PATENT-CLASS-137-15.1	.....	c02	N74-20686
US-PATENT-CLASS-136-89	.....	c03	N72-22042	US-PATENT-CLASS-137-15.1	.....	c07	N74-31270
US-PATENT-CLASS-136-89	.....	c31	N72-22874	US-PATENT-CLASS-137-15.1	.....	c07	N75-24736
US-PATENT-CLASS-136-89	.....	c03	N72-24037	US-PATENT-CLASS-137-15.1	.....	c07	N77-18154
US-PATENT-CLASS-136-89	.....	c09	N72-25259	US-PATENT-CLASS-137-15.1	.....	c07	N79-14096
US-PATENT-CLASS-136-89	.....	c03	N72-27053	US-PATENT-CLASS-137-15.2	.....	c02	N74-20646
US-PATENT-CLASS-136-89	.....	c09	N73-32109	US-PATENT-CLASS-137-15.2	.....	c35	N76-14431
US-PATENT-CLASS-136-89	.....	c44	N74-14784	US-PATENT-CLASS-137-81	.....	c05	N72-20097
US-PATENT-CLASS-136-89	.....	c44	N76-14600	US-PATENT-CLASS-137-81	.....	c14	N73-13418
US-PATENT-CLASS-136-89	.....	c44	N76-28635	US-PATENT-CLASS-137-81.5	.....	c12	N69-21466
US-PATENT-CLASS-136-89	.....	c44	N76-31666	US-PATENT-CLASS-137-81.5	.....	c15	N71-15609
US-PATENT-CLASS-136-89	.....	c44	N77-10635	US-PATENT-CLASS-137-81.5	.....	c12	N71-17578
US-PATENT-CLASS-136-89	.....	c44	N77-14580	US-PATENT-CLASS-137-81.5	.....	c12	N71-17579
US-PATENT-CLASS-136-89	.....	c44	N77-19571	US-PATENT-CLASS-137-81.5	.....	c10	N71-25899
US-PATENT-CLASS-136-89	.....	c44	N79-11468	US-PATENT-CLASS-137-81.5	.....	c12	N71-27332
US-PATENT-CLASS-136-89AC	.....	c44	N77-31601	US-PATENT-CLASS-137-81.5	.....	c12	N71-28741
US-PATENT-CLASS-136-89CC	.....	c44	N78-25527	US-PATENT-CLASS-137-81.5	.....	c28	N72-22772
US-PATENT-CLASS-136-89CC	.....	c44	N78-25529	US-PATENT-CLASS-137-81.5	.....	c15	N72-33477
US-PATENT-CLASS-136-89CC	.....	c44	N79-11467	US-PATENT-CLASS-137-81.5	.....	c15	N73-13462
US-PATENT-CLASS-136-89CC	.....	c44	N79-17314	US-PATENT-CLASS-137-81.5	.....	c28	N73-13773
US-PATENT-CLASS-136-89H	.....	c44	N78-25528	US-PATENT-CLASS-137-101	.....	c07	N77-23106
US-PATENT-CLASS-136-89H	.....	c44	N78-25529	US-PATENT-CLASS-137-104	.....	c37	N78-10467
US-PATENT-CLASS-136-89P	.....	c44	N77-31601	US-PATENT-CLASS-137-110	.....	c54	N76-24900
US-PATENT-CLASS-136-89P	.....	c44	N78-25528	US-PATENT-CLASS-137-154	.....	c15	N73-27406
US-PATENT-CLASS-136-89P	.....	c44	N78-25529	US-PATENT-CLASS-137-197	.....	c15	N70-41646
US-PATENT-CLASS-136-89P	.....	c44	N78-27515	US-PATENT-CLASS-137-197	.....	c35	N78-12390
US-PATENT-CLASS-136-89P	.....	c44	N79-17314	US-PATENT-CLASS-137-207	.....	c34	N77-30399
US-PATENT-CLASS-136-89P	.....	c44	N78-24609	US-PATENT-CLASS-137-209	.....	c15	N70-30817
US-PATENT-CLASS-136-89S	.....	c44	N78-13526	US-PATENT-CLASS-137-340	.....	c15	N70-35087
US-PATENT-CLASS-136-89SJ	.....	c44	N79-11467	US-PATENT-CLASS-137-340	.....	c12	N71-17661
US-PATENT-CLASS-136-89SJ	.....	c44	N79-14528	US-PATENT-CLASS-137-341	.....	c15	N73-26472
US-PATENT-CLASS-136-90	.....	c44	N76-14601	US-PATENT-CLASS-137-397	.....	c05	N72-20097
US-PATENT-CLASS-136-100R	.....	c03	N72-20034	US-PATENT-CLASS-137-469	.....	c34	N78-25351
US-PATENT-CLASS-136-114	.....	c44	N76-14601	US-PATENT-CLASS-137-484.2	.....	c14	N73-13418
US-PATENT-CLASS-136-132	.....	c03	N71-11053	US-PATENT-CLASS-137-487.5	.....	c15	N69-21924
US-PATENT-CLASS-136-132	.....	c03	N71-22974	US-PATENT-CLASS-137-491	.....	c15	N70-38603
US-PATENT-CLASS-136-133	.....	c15	N69-24320	US-PATENT-CLASS-137-495	.....	c15	N71-22706
US-PATENT-CLASS-136-133	.....	c03	N71-23006	US-PATENT-CLASS-137-496	.....	c34	N78-25351
US-PATENT-CLASS-136-133	.....	c03	N72-15986	US-PATENT-CLASS-137-501	.....	c14	N71-18625
US-PATENT-CLASS-136-135	.....	c03	N72-15986	US-PATENT-CLASS-137-505.12	.....	c34	N78-25351
US-PATENT-CLASS-136-143	.....	c44	N76-29699	US-PATENT-CLASS-137-505.16	.....	c37	N78-25426
US-PATENT-CLASS-136-146	.....	c03	N69-21337	US-PATENT-CLASS-137-505.25	.....	c37	N75-15050
US-PATENT-CLASS-136-146	.....	c24	N76-14204	US-PATENT-CLASS-137-505.38	.....	c37	N75-15050
US-PATENT-CLASS-136-148	.....	c24	N76-14204	US-PATENT-CLASS-137-505.42	.....	c37	N76-14463
US-PATENT-CLASS-136-162	.....	c44	N76-14601	US-PATENT-CLASS-137-515.3	.....	c15	N73-30459
US-PATENT-CLASS-136-166	.....	c03	N71-23336	US-PATENT-CLASS-137-516.27	.....	c15	N73-30459
US-PATENT-CLASS-136-166	.....	c03	N72-20032	US-PATENT-CLASS-137-535	.....	c05	N73-32014
US-PATENT-CLASS-136-170	.....	c03	N71-11051	US-PATENT-CLASS-137-535	.....	c05	N73-25125
US-PATENT-CLASS-136-175	.....	c03	N72-20034	US-PATENT-CLASS-137-538	.....	c15	N70-41811
US-PATENT-CLASS-136-179	.....	c03	N70-41864	US-PATENT-CLASS-137-539	.....	c37	N76-14463
US-PATENT-CLASS-136-182	.....	c03	N71-10728	US-PATENT-CLASS-137-550	.....	c09	N71-23191
US-PATENT-CLASS-136-182	.....	c03	N71-20407	US-PATENT-CLASS-137-554	.....	c11	N73-12265
US-PATENT-CLASS-136-182	.....	c03	N71-20491	US-PATENT-CLASS-137-559	.....	c32	N71-16103
US-PATENT-CLASS-136-182	.....	c44	N74-27519	US-PATENT-CLASS-137-582	.....	c32	N71-16106
US-PATENT-CLASS-136-182	.....	c44	N76-14601	US-PATENT-CLASS-137-582	.....	c15	N71-19569
US-PATENT-CLASS-136-202	.....	c09	N72-12136	US-PATENT-CLASS-137-582	.....	c15	N73-26472
US-PATENT-CLASS-136-202	.....	c03	N72-26031	US-PATENT-CLASS-137-582	.....	c12	N71-18615
US-PATENT-CLASS-136-202	.....	c44	N76-16612	US-PATENT-CLASS-137-594	.....	

NUMBER INDEX

US-PATENT-CLASS-137-604	c15 N73-27406	US-PATENT-CLASS-149-19.92	c28 N79-14228
US-PATENT-CLASS-137-608	c15 N73-13462	US-PATENT-CLASS-149-20	c27 N72-25699
US-PATENT-CLASS-137-614	c15 N70-36492	US-PATENT-CLASS-149-20	c28 N79-14228
US-PATENT-CLASS-137-614.06	c37 N79-11402	US-PATENT-CLASS-149-36	c27 N72-25699
US-PATENT-CLASS-137-615	c12 N71-16031	US-PATENT-CLASS-149-36	c27 N73-16764
US-PATENT-CLASS-137-624.11	c35 N78-19466	US-PATENT-CLASS-149-36	c06 N73-30097
US-PATENT-CLASS-137-624.14	c03 N69-21469	US-PATENT-CLASS-149-36	c24 N76-14203
US-PATENT-CLASS-137-625.3	c37 N78-25426	US-PATENT-CLASS-149-42	c20 N78-32179
US-PATENT-CLASS-137-625.5	c15 N71-23051	US-PATENT-CLASS-149-43	c20 N78-32179
US-PATENT-CLASS-137-625.38	c37 N78-25426	US-PATENT-CLASS-149-44	c20 N78-32179
US-PATENT-CLASS-137-625.69	c15 N70-36908	US-PATENT-CLASS-149-60	c28 N74-33209
US-PATENT-CLASS-137-628	c37 N74-21065	US-PATENT-CLASS-149-76	c28 N74-33209
US-PATENT-CLASS-137-637.05	c37 N79-11402	US-PATENT-CLASS-149-76	c20 N78-32179
US-PATENT-CLASS-137-819	c33 N74-11050	US-PATENT-CLASS-149-83	c20 N78-32179
US-PATENT-CLASS-137-833	c33 N74-11050	US-PATENT-CLASS-149-85	c20 N78-32179
US-PATENT-CLASS-137-840	c33 N74-11050	US-PATENT-CLASS-149-88	c28 N78-31255
US-PATENT-CLASS-138-4	c15 N71-18580	US-PATENT-CLASS-149-92	c27 N72-25699
US-PATENT-CLASS-138-42	c15 N71-15608	US-PATENT-CLASS-149-92	c28 N78-31255
US-PATENT-CLASS-138-43	c15 N71-19213	US-PATENT-CLASS-149-93	c28 N78-31255
US-PATENT-CLASS-138-45	c15 N71-18580	US-PATENT-CLASS-149-105	c28 N78-31255
US-PATENT-CLASS-138-45	c15 N73-13462	US-PATENT-CLASS-149-109	c27 N70-41897
US-PATENT-CLASS-138-46	c12 N71-18615	US-PATENT-CLASS-149-111	c28 N78-31255
US-PATENT-CLASS-138-113	c34 N75-12222	US-PATENT-CLASS-150-1	c52 N79-14749
US-PATENT-CLASS-138-114	c34 N75-12222	US-PATENT-CLASS-152-11	c31 N71-18611
US-PATENT-CLASS-138-119	c32 N70-41579	US-PATENT-CLASS-152-225	c15 N71-27091
US-PATENT-CLASS-138-148	c34 N75-12222	US-PATENT-CLASS-152-250	c15 N71-27091
US-PATENT-CLASS-138-178	c15 N72-20445	US-PATENT-CLASS-156-DIG.62	c76 N77-32919
US-PATENT-CLASS-139-425R	c28 N72-11708	US-PATENT-CLASS-156-DIG.64	c76 N79-11920
US-PATENT-CLASS-140-105	c15 N72-12408	US-PATENT-CLASS-156-DIG.65	c76 N79-11920
US-PATENT-CLASS-140-123	c15 N71-15918	US-PATENT-CLASS-156-DIG.88	c76 N79-11920
US-PATENT-CLASS-140-124	c15 N71-10809	US-PATENT-CLASS-156-3	c17 N71-16044
US-PATENT-CLASS-141-4	c35 N78-10428	US-PATENT-CLASS-156-3	c15 N71-21404
US-PATENT-CLASS-141-5	c33 N71-20834	US-PATENT-CLASS-156-3	c15 N71-24047
US-PATENT-CLASS-141-23	c15 N72-21465	US-PATENT-CLASS-156-7	c06 N72-21094
US-PATENT-CLASS-141-91	c12 N71-21089	US-PATENT-CLASS-156-16	c74 N75-12732
US-PATENT-CLASS-141-197	c35 N78-10428	US-PATENT-CLASS-156-17	c74 N75-12732
US-PATENT-CLASS-141-258	c14 N71-27005	US-PATENT-CLASS-156-18	c76 N79-21910
US-PATENT-CLASS-148-1.5	c26 N71-10607	US-PATENT-CLASS-156-18	c26 N73-26752
US-PATENT-CLASS-148-1.5	c26 N71-23654	US-PATENT-CLASS-156-52	c74 N75-12732
US-PATENT-CLASS-148-1.5	c76 N74-20329	US-PATENT-CLASS-156-60	c31 N79-21226
US-PATENT-CLASS-148-2	c26 N77-20201	US-PATENT-CLASS-156-66	c15 N71-22713
US-PATENT-CLASS-148-6	c18 N71-29040	US-PATENT-CLASS-156-84	c15 N72-113929
US-PATENT-CLASS-148-6	c76 N79-16678	US-PATENT-CLASS-156-86	c15 N72-163305
US-PATENT-CLASS-148-6.3	c17 N71-33408	US-PATENT-CLASS-156-89	c15 N72-163305
US-PATENT-CLASS-148-6.3	c44 N79-18444	US-PATENT-CLASS-156-94	c37 N75-159929
US-PATENT-CLASS-148-6.11	c15 N71-24875	US-PATENT-CLASS-156-94	c32 N74-27612
US-PATENT-CLASS-148-6.16	c18 N71-23047	US-PATENT-CLASS-156-99	c24 N74-300049
US-PATENT-CLASS-148-6.20	c17 N71-23828	US-PATENT-CLASS-156-154	c37 N75-159929
US-PATENT-CLASS-148-11.5R	c15 N73-13465	US-PATENT-CLASS-156-172	c24 N78-17150
US-PATENT-CLASS-148-12.7A	c26 N78-24333	US-PATENT-CLASS-156-212	c15 N71-176513
US-PATENT-CLASS-148-12.7N	c26 N77-20201	US-PATENT-CLASS-156-218	c03 N71-26726
US-PATENT-CLASS-148-13	c14 N71-25892	US-PATENT-CLASS-156-229	c54 N74-32546
US-PATENT-CLASS-148-20.3	c26 N77-20201	US-PATENT-CLASS-156-242	c24 N77-28225
US-PATENT-CLASS-148-32	c26 N77-32279	US-PATENT-CLASS-156-242	c15 N69-240322
US-PATENT-CLASS-148-32	c26 N78-18183	US-PATENT-CLASS-156-245	c37 N76-24575
US-PATENT-CLASS-148-32.5	c17 N72-22535	US-PATENT-CLASS-156-245	c31 N74-18089
US-PATENT-CLASS-148-32.5	c26 N77-20201	US-PATENT-CLASS-156-247	c24 N78-17149
US-PATENT-CLASS-148-32.5	c26 N77-32280	US-PATENT-CLASS-156-250	c31 N74-18089
US-PATENT-CLASS-148-121	c26 N78-18183	US-PATENT-CLASS-156-264	c03 N72-25019
US-PATENT-CLASS-148-125	c76 N79-16678	US-PATENT-CLASS-156-264	c05 N72-25121
US-PATENT-CLASS-148-126	c26 N78-24333	US-PATENT-CLASS-156-285	c24 N78-17150
US-PATENT-CLASS-148-126	c17 N71-24142	US-PATENT-CLASS-156-285	c15 N71-23052
US-PATENT-CLASS-148-126	c18 N71-26153	US-PATENT-CLASS-156-285	c18 N73-30532
US-PATENT-CLASS-148-126	c18 N71-28729	US-PATENT-CLASS-156-285	c31 N74-18089
US-PATENT-CLASS-148-127	c26 N74-10521	US-PATENT-CLASS-156-285	c24 N74-27035
US-PATENT-CLASS-148-162	c26 N75-29236	US-PATENT-CLASS-156-286	c24 N78-17149
US-PATENT-CLASS-148-174	c26 N77-20201	US-PATENT-CLASS-156-286	c24 N78-17150
US-PATENT-CLASS-148-174	c26 N71-29156	US-PATENT-CLASS-156-286	c37 N76-21554
US-PATENT-CLASS-148-174	c44 N76-28635	US-PATENT-CLASS-156-286	c37 N76-24575
US-PATENT-CLASS-148-175	c44 N78-24609	US-PATENT-CLASS-156-289	c24 N78-17150
US-PATENT-CLASS-148-175	c25 N75-26043	US-PATENT-CLASS-156-300	c24 N78-17150
US-PATENT-CLASS-148-175	c76 N76-25049	US-PATENT-CLASS-156-306	c24 N78-17150
US-PATENT-CLASS-148-187	c44 N76-28635	US-PATENT-CLASS-156-308	c05 N72-25121
US-PATENT-CLASS-148-187	c26 N72-17820	US-PATENT-CLASS-156-309	c31 N74-18089
US-PATENT-CLASS-148-188	c14 N72-28438	US-PATENT-CLASS-156-311	c27 N78-17205
US-PATENT-CLASS-148-188	c24 N71-10560	US-PATENT-CLASS-156-311	c24 N78-17150
US-PATENT-CLASS-148-188	c09 N71-12513	US-PATENT-CLASS-156-320	c15 N72-11392
US-PATENT-CLASS-149-1	c44 N79-11468	US-PATENT-CLASS-156-331	c37 N74-18126
US-PATENT-CLASS-149-1	c23 N71-16212	US-PATENT-CLASS-156-331	c27 N78-17205
US-PATENT-CLASS-149-2	c06 N73-30097	US-PATENT-CLASS-156-331	c24 N79-16915
US-PATENT-CLASS-149-17	c12 N70-40124	US-PATENT-CLASS-156-345	c15 N70-42033
US-PATENT-CLASS-149-19	c28 N74-33209	US-PATENT-CLASS-156-382	c37 N76-21554
US-PATENT-CLASS-149-19	c27 N71-14090	US-PATENT-CLASS-156-510	c15 N71-17687
US-PATENT-CLASS-149-19	c27 N72-25699	US-PATENT-CLASS-156-545	c03 N72-25019
US-PATENT-CLASS-149-19.4	c27 N73-16764	US-PATENT-CLASS-156-556	c15 N71-24164
US-PATENT-CLASS-149-19.4	c28 N78-31255	US-PATENT-CLASS-156-601	c37 N76-21554
US-PATENT-CLASS-149-19.8	c28 N78-31255		c76 N77-32919
US-PATENT-CLASS-149-19.9	c28 N79-14228		

NUMBER INDEX

US-PATENT-CLASS-156-608	c76	779-11920	US-PATENT-CLASS-165-105	c34	776-1731
US-PATENT-CLASS-156-610	c76	776-25049	US-PATENT-CLASS-165-105	c34	776-2751
US-PATENT-CLASS-156-612	c76	776-25049	US-PATENT-CLASS-165-105	c34	777-3241
US-PATENT-CLASS-156-612	c44	776-28635	US-PATENT-CLASS-165-105	c25	778-1022
US-PATENT-CLASS-156-613	c76	776-25049	US-PATENT-CLASS-165-105	c34	778-1733
US-PATENT-CLASS-156-613	c44	776-28635	US-PATENT-CLASS-165-105	c34	778-1733
US-PATENT-CLASS-156-614	c44	776-28635	US-PATENT-CLASS-165-105	c44	779-1844
US-PATENT-CLASS-156-617SP	c76	779-11920	US-PATENT-CLASS-165-106	c33	773-3281
US-PATENT-CLASS-156-619	c76	777-32919	US-PATENT-CLASS-165-106	c34	776-1731
US-PATENT-CLASS-156-620	c76	777-32919	US-PATENT-CLASS-165-107	c09	771-2480
US-PATENT-CLASS-156-633	c44	778-25529	US-PATENT-CLASS-165-107	c44	777-3258
US-PATENT-CLASS-156-645	c27	777-32308	US-PATENT-CLASS-165-109	c35	774-1509
US-PATENT-CLASS-156-663	c27	777-32308	US-PATENT-CLASS-165-110	c77	775-2013
US-PATENT-CLASS-161-7	c18	772-25540	US-PATENT-CLASS-165-111	c77	775-2013
US-PATENT-CLASS-161-7	c18	772-25541	US-PATENT-CLASS-165-133	c33	771-1627
US-PATENT-CLASS-161-42	c37	774-18126	US-PATENT-CLASS-165-133	c33	771-2535
US-PATENT-CLASS-161-43	c37	774-18126	US-PATENT-CLASS-165-133	c33	772-2091
US-PATENT-CLASS-161-67	c33	772-17947	US-PATENT-CLASS-165-133	c44	776-2367
US-PATENT-CLASS-161-68	c18	771-21651	US-PATENT-CLASS-165-134	c34	778-1733
US-PATENT-CLASS-161-68	c18	772-25540	US-PATENT-CLASS-165-138	c09	771-2480
US-PATENT-CLASS-161-68	c18	772-25541	US-PATENT-CLASS-165-141	c28	773-3260
US-PATENT-CLASS-161-69	c33	771-24858	US-PATENT-CLASS-165-146	c34	779-1328
US-PATENT-CLASS-161-89	c17	771-28747	US-PATENT-CLASS-165-155	c33	772-2091
US-PATENT-CLASS-161-92	c37	775-26371	US-PATENT-CLASS-165-158	c33	772-2091
US-PATENT-CLASS-161-93	c18	773-12604	US-PATENT-CLASS-165-161	c33	772-2091
US-PATENT-CLASS-161-93	c37	774-18126	US-PATENT-CLASS-165-164	c34	777-1046
US-PATENT-CLASS-161-93	c37	775-26371	US-PATENT-CLASS-165-166	c54	777-3272
US-PATENT-CLASS-161-115	c18	770-41583	US-PATENT-CLASS-165-169	c34	779-1328
US-PATENT-CLASS-161-116	c37	774-23064	US-PATENT-CLASS-165-169	c34	779-1328
US-PATENT-CLASS-161-127	c18	772-25540	US-PATENT-CLASS-165-170	c34	777-1046
US-PATENT-CLASS-161-127	c18	772-25541	US-PATENT-CLASS-165-174	c33	772-2091
US-PATENT-CLASS-161-161	c33	771-25351	US-PATENT-CLASS-165-185	c28	773-3260
US-PATENT-CLASS-161-182	c15	769-39735	US-PATENT-CLASS-166-248	c43	778-14452
US-PATENT-CLASS-161-182	c37	774-18126	US-PATENT-CLASS-166-259	c43	778-14452
US-PATENT-CLASS-161-189	c23	771-15978	US-PATENT-CLASS-169-28	c12	772-21310
US-PATENT-CLASS-161-192	c37	774-18126	US-PATENT-CLASS-169-36	c12	772-21310
US-PATENT-CLASS-161-196	c37	774-21063	US-PATENT-CLASS-173-131	c15	773-13463
US-PATENT-CLASS-161-214	c06	773-27980	US-PATENT-CLASS-173-132	c37	776-18454
US-PATENT-CLASS-161-227	c06	773-27980	US-PATENT-CLASS-174-DIG.6	c26	773-26752
US-PATENT-CLASS-162-14	c85	779-17747	US-PATENT-CLASS-174-DIG.6	c26	773-32571
US-PATENT-CLASS-162-29	c85	779-17747	US-PATENT-CLASS-174-DIG.8	c33	774-22865
US-PATENT-CLASS-162-102	c24	776-14204	US-PATENT-CLASS-174-15C	c33	774-27683
US-PATENT-CLASS-162-153	c24	776-14204	US-PATENT-CLASS-174-15CA	c31	779-17029
US-PATENT-CLASS-162-222	c24	776-14204	US-PATENT-CLASS-174-18	c09	769-21542
US-PATENT-CLASS-162-228	c24	776-14204	US-PATENT-CLASS-174-28	c07	771-27191
US-PATENT-CLASS-164-60	c24	777-27187	US-PATENT-CLASS-174-28	c33	774-27683
US-PATENT-CLASS-164-105	c20	779-21123	US-PATENT-CLASS-174-35	c07	771-19436
US-PATENT-CLASS-164-132	c37	776-23570	US-PATENT-CLASS-174-36	c09	772-22198
US-PATENT-CLASS-165-1	c09	770-41717	US-PATENT-CLASS-174-52S	c15	773-14469
US-PATENT-CLASS-165-1	c34	775-12222	US-PATENT-CLASS-174-68.5	c15	770-41960
US-PATENT-CLASS-165-2	c33	771-24876	US-PATENT-CLASS-174-69	c33	774-22865
US-PATENT-CLASS-165-2	c35	774-15093	US-PATENT-CLASS-174-70R	c33	774-22865
US-PATENT-CLASS-165-2	c44	777-32581	US-PATENT-CLASS-174-72	c03	769-21539
US-PATENT-CLASS-165-2	c44	778-17460	US-PATENT-CLASS-174-84	c15	772-17455
US-PATENT-CLASS-165-2	c51	779-10694	US-PATENT-CLASS-174-106R	c09	772-22198
US-PATENT-CLASS-165-3	c03	772-28025	US-PATENT-CLASS-174-110.3	c14	771-27186
US-PATENT-CLASS-165-10	c44	776-31667	US-PATENT-CLASS-174-111	c33	774-27683
US-PATENT-CLASS-165-12	c33	771-24276	US-PATENT-CLASS-174-115	c09	770-38201
US-PATENT-CLASS-165-20	c03	772-28025	US-PATENT-CLASS-174-117FP	c09	772-22198
US-PATENT-CLASS-165-30	c51	779-10694	US-PATENT-CLASS-174-126CP	c26	773-32571
US-PATENT-CLASS-165-30	c31	779-17029	US-PATENT-CLASS-174-145	c33	776-16332
US-PATENT-CLASS-165-32	c31	773-30829	US-PATENT-CLASS-174-148	c33	776-16332
US-PATENT-CLASS-165-32	c33	773-32818	US-PATENT-CLASS-175-26	c15	773-32362
US-PATENT-CLASS-165-32	c34	778-17337	US-PATENT-CLASS-175-310	c15	770-42034
US-PATENT-CLASS-165-44	c15	771-26611	US-PATENT-CLASS-175-323	c14	769-21923
US-PATENT-CLASS-165-46	c05	771-19439	US-PATENT-CLASS-176-3	c75	775-13625
US-PATENT-CLASS-165-46	c05	771-24147	US-PATENT-CLASS-176-11	c24	772-33681
US-PATENT-CLASS-165-46	c05	773-20137	US-PATENT-CLASS-176-11	c25	776-27383
US-PATENT-CLASS-165-46	c05	773-26071	US-PATENT-CLASS-176-11	c25	776-29379
US-PATENT-CLASS-165-47	c33	771-29052	US-PATENT-CLASS-176-11	c25	778-27226
US-PATENT-CLASS-165-47	c31	773-30829	US-PATENT-CLASS-176-14	c25	776-29379
US-PATENT-CLASS-165-47	c34	775-12222	US-PATENT-CLASS-176-16	c25	776-27383
US-PATENT-CLASS-165-86	c15	771-26611	US-PATENT-CLASS-176-16	c25	776-29379
US-PATENT-CLASS-165-86	c33	771-29046	US-PATENT-CLASS-176-16	c25	778-27226
US-PATENT-CLASS-165-96	c33	770-36847	US-PATENT-CLASS-176-19	c14	770-34669
US-PATENT-CLASS-165-96	c33	771-22890	US-PATENT-CLASS-176-19	c14	770-36808
US-PATENT-CLASS-165-96	c31	773-30829	US-PATENT-CLASS-176-22	c73	778-28913
US-PATENT-CLASS-165-96	c33	773-32818	US-PATENT-CLASS-176-33	c73	778-28913
US-PATENT-CLASS-165-96	c34	778-17337	US-PATENT-CLASS-176-35	c22	770-34501
US-PATENT-CLASS-165-104	c33	771-25353	US-PATENT-CLASS-176-39	c73	778-19920
US-PATENT-CLASS-165-105	c09	771-24807	US-PATENT-CLASS-176-39	c73	778-28913
US-PATENT-CLASS-165-105	c33	771-25353	US-PATENT-CLASS-176-45	c22	771-28759
US-PATENT-CLASS-165-105	c33	772-17948	US-PATENT-CLASS-176-52	c22	770-34572
US-PATENT-CLASS-165-105	c31	773-30829	US-PATENT-CLASS-176-86G	c22	772-20597
US-PATENT-CLASS-165-105	c28	773-32606	US-PATENT-CLASS-176-169	c22	773-32528
US-PATENT-CLASS-165-105	c34	774-18552	US-PATENT-CLASS-177-1	c35	777-19385
US-PATENT-CLASS-165-105	c34	775-12222	US-PATENT-CLASS-177-200	c35	774-26945
US-PATENT-CLASS-165-105	c44	775-32581	US-PATENT-CLASS-177-208	c35	777-19385
US-PATENT-CLASS-165-105	c44	776-16612	US-PATENT-CLASS-177-210	c14	771-10773

NUMBER INDEX

US-PATENT-CLASS-177-211	c35	N74-26945	US-PATENT-CLASS-178-69A	c35	N75-21582
US-PATENT-CLASS-177-246	c35	N74-26945	US-PATENT-CLASS-178-69C	c32	N76-16249
US-PATENT-CLASS-178-DIG. 1	c36	N74-20009	US-PATENT-CLASS-178-79	c32	N75-21486
US-PATENT-CLASS-178-DIG. 1	c33	N75-30431	US-PATENT-CLASS-178-88	c07	N71-12392
US-PATENT-CLASS-178-DIG. 1	c45	N76-17656	US-PATENT-CLASS-178-88	c33	N74-12887
US-PATENT-CLASS-178-DIG. 6	c10	N73-13235	US-PATENT-CLASS-178-88	c32	N74-20809
US-PATENT-CLASS-178-DIG. 8	c14	N72-25412	US-PATENT-CLASS-178-88	c33	N74-27705
US-PATENT-CLASS-178-DIG. 8	c45	N76-17656	US-PATENT-CLASS-178-88	c33	N76-14371
US-PATENT-CLASS-178-DIG. 12	c07	N72-12081	US-PATENT-CLASS-178-88	c32	N76-16249
US-PATENT-CLASS-178-DIG. 12	c32	N75-21485	US-PATENT-CLASS-178-88	c32	N77-10392
US-PATENT-CLASS-178-DIG. 20	c23	N72-27728	US-PATENT-CLASS-178-88	c32	N77-24331
US-PATENT-CLASS-178-DIG. 20	c35	N75-19613	US-PATENT-CLASS-179-1	c07	N71-26181
US-PATENT-CLASS-178-DIG. 20	c18	N76-14186	US-PATENT-CLASS-179-1	c31	N71-33160
US-PATENT-CLASS-178-DIG. 21	c16	N72-13437	US-PATENT-CLASS-179-1P	c10	N73-12244
US-PATENT-CLASS-178-DIG. 23	c07	N73-30115	US-PATENT-CLASS-179-1R	c07	N71-33108
US-PATENT-CLASS-178-DIG. 25	c74	N75-25706	US-PATENT-CLASS-179-1SA	c10	N73-25240
US-PATENT-CLASS-178-DIG. 28	c08	N72-22164	US-PATENT-CLASS-179-1SA	c32	N76-31372
US-PATENT-CLASS-178-DIG. 29	c35	N75-25123	US-PATENT-CLASS-179-1SA	c32	N77-30309
US-PATENT-CLASS-178-DIG. 32	c71	N74-21014	US-PATENT-CLASS-179-1SP	c32	N77-30309
US-PATENT-CLASS-178-DIG. 35	c09	N76-24280	US-PATENT-CLASS-179-1VC	c07	N71-33108
US-PATENT-CLASS-178-DIG. 36	c08	N72-22164	US-PATENT-CLASS-179-15	c07	N69-39978
US-PATENT-CLASS-178-5.2R	c09	N71-28618	US-PATENT-CLASS-179-15	c07	N71-20814
US-PATENT-CLASS-178-5.2R	c07	N72-17109	US-PATENT-CLASS-179-15	c07	N71-24621
US-PATENT-CLASS-178-5.4	c07	N72-17109	US-PATENT-CLASS-179-15	c07	N71-24622
US-PATENT-CLASS-178-5.8R	c71	N74-21014	US-PATENT-CLASS-179-15	c08	N72-18184
US-PATENT-CLASS-178-6	c07	N71-19433	US-PATENT-CLASS-179-15.55R	c08	N72-11171
US-PATENT-CLASS-178-6	c09	N71-19449	US-PATENT-CLASS-179-15.55R	c08	N72-33172
US-PATENT-CLASS-178-6	c07	N71-23026	US-PATENT-CLASS-179-15A	c08	N72-22162
US-PATENT-CLASS-178-6	c07	N71-26579	US-PATENT-CLASS-179-15A	c07	N73-26118
US-PATENT-CLASS-178-6	c07	N72-12081	US-PATENT-CLASS-179-15AN	c07	N73-16121
US-PATENT-CLASS-178-6	c16	N72-13437	US-PATENT-CLASS-179-15AT	c32	N74-30524
US-PATENT-CLASS-178-6	c10	N73-13235	US-PATENT-CLASS-179-15BA	c60	N77-12721
US-PATENT-CLASS-178-6	c36	N74-20009	US-PATENT-CLASS-179-15BC	c08	N72-25208
US-PATENT-CLASS-178-6.5	c23	N72-27728	US-PATENT-CLASS-179-15BC	c07	N73-16121
US-PATENT-CLASS-178-6.6	c07	N71-11300	US-PATENT-CLASS-179-15BC	c32	N74-30523
US-PATENT-CLASS-178-6.6	c07	N71-26102	US-PATENT-CLASS-179-15BC	c33	N75-26243
US-PATENT-CLASS-178-6.6DD	c07	N73-30115	US-PATENT-CLASS-179-15BL	c08	N72-22162
US-PATENT-CLASS-178-6.6DD	c35	N74-11283	US-PATENT-CLASS-179-15BH	c07	N73-26118
US-PATENT-CLASS-178-6.7	c07	N72-17109	US-PATENT-CLASS-179-15BS	c10	N71-33407
US-PATENT-CLASS-178-6.7R	c35	N74-15831	US-PATENT-CLASS-179-15BS	c07	N72-20140
US-PATENT-CLASS-178-6.8	c08	N72-22164	US-PATENT-CLASS-179-15BS	c07	N73-30115
US-PATENT-CLASS-178-6.8	c14	N72-25412	US-PATENT-CLASS-179-15BS	c32	N75-26195
US-PATENT-CLASS-178-6.8	c07	N73-30115	US-PATENT-CLASS-179-15BS	c60	N77-19760
US-PATENT-CLASS-178-6.8	c33	N75-30431	US-PATENT-CLASS-179-15BV	c07	N72-25172
US-PATENT-CLASS-178-6.8	c45	N76-17656	US-PATENT-CLASS-179-15BY	c32	N74-30524
US-PATENT-CLASS-178-7.1	c07	N71-24612	US-PATENT-CLASS-179-15FD	c08	N72-25208
US-PATENT-CLASS-178-7.1	c07	N71-27341	US-PATENT-CLASS-179-15FS	c07	N73-28012
US-PATENT-CLASS-178-7.1	c09	N72-17156	US-PATENT-CLASS-179-91R	c74	N78-14889
US-PATENT-CLASS-178-7.1	c32	N74-19790	US-PATENT-CLASS-179-100.2	c09	N69-24329
US-PATENT-CLASS-178-7.1	c36	N75-19652	US-PATENT-CLASS-179-100.2	c09	N71-25866
US-PATENT-CLASS-178-7.2	c14	N70-41807	US-PATENT-CLASS-179-100.2	c08	N71-27210
US-PATENT-CLASS-178-7.2	c71	N74-21014	US-PATENT-CLASS-179-100.2	c08	N71-27255
US-PATENT-CLASS-178-7.2	c35	N75-25123	US-PATENT-CLASS-179-100.2A	c21	N73-13644
US-PATENT-CLASS-178-7.2R	c08	N72-22164	US-PATENT-CLASS-179-100.2A	c32	N74-27612
US-PATENT-CLASS-178-7.3	c07	N71-27341	US-PATENT-CLASS-179-100.2B	c32	N74-27612
US-PATENT-CLASS-178-7.3	c07	N72-12081	US-PATENT-CLASS-179-100.2C	c35	N77-21392
US-PATENT-CLASS-178-7.5E	c10	N72-31273	US-PATENT-CLASS-179-100.2CH	c36	N74-13205
US-PATENT-CLASS-178-7.6	c36	N74-20009	US-PATENT-CLASS-179-100.2CH	c35	N78-29421
US-PATENT-CLASS-178-7.7	c09	N71-12539	US-PATENT-CLASS-179-100.2CH	c35	N79-16246
US-PATENT-CLASS-178-7.7	c32	N74-20813	US-PATENT-CLASS-179-100.2K	c07	N72-21119
US-PATENT-CLASS-178-7.89	c09	N76-24280	US-PATENT-CLASS-179-100.2HD	c35	N74-11283
US-PATENT-CLASS-178-7.92	c14	N72-25414	US-PATENT-CLASS-179-100.2T	c35	N74-11283
US-PATENT-CLASS-178-15	c33	N75-19517	US-PATENT-CLASS-179-100.2CA	c09	N72-11224
US-PATENT-CLASS-178-18	c10	N73-32143	US-PATENT-CLASS-179-100.2HD	c09	N72-11224
US-PATENT-CLASS-178-50	c08	N72-18184	US-PATENT-CLASS-179-107R	c33	N78-10375
US-PATENT-CLASS-178-50	c08	N72-25208	US-PATENT-CLASS-179-175.1A	c14	N73-27379
US-PATENT-CLASS-178-52	c08	N72-22162	US-PATENT-CLASS-179-175.1A	c33	N78-10375
US-PATENT-CLASS-178-54CP	c09	N71-28618	US-PATENT-CLASS-180-6.5	c11	N73-26238
US-PATENT-CLASS-178-54PE	c09	N71-28618	US-PATENT-CLASS-180-7R	c11	N73-26238
US-PATENT-CLASS-178-58A	c32	N75-21486	US-PATENT-CLASS-180-8A	c11	N73-26238
US-PATENT-CLASS-178-66	c09	N71-25866	US-PATENT-CLASS-180-9.2R	c11	N73-26238
US-PATENT-CLASS-178-66	c08	N72-18184	US-PATENT-CLASS-180-9.5	c11	N73-26238
US-PATENT-CLASS-178-66R	c32	N75-24981	US-PATENT-CLASS-180-41	c11	N73-26238
US-PATENT-CLASS-178-67	c08	N70-41807	US-PATENT-CLASS-180-79.3	c37	N74-18125
US-PATENT-CLASS-178-67	c32	N74-26654	US-PATENT-CLASS-180-105E	c11	N72-20244
US-PATENT-CLASS-178-69.1	c32	N78-15323	US-PATENT-CLASS-180-118	c31	N71-15689
US-PATENT-CLASS-178-69.4R	c32	N74-10132	US-PATENT-CLASS-180-121	c31	N71-15689
US-PATENT-CLASS-178-69.5	c07	N71-11281	US-PATENT-CLASS-180-125	c15	N72-17451
US-PATENT-CLASS-178-69.5	c10	N71-19468	US-PATENT-CLASS-180-127	c15	N72-17451
US-PATENT-CLASS-178-69.5	c10	N71-25865	US-PATENT-CLASS-181.5R	c71	N74-31148
US-PATENT-CLASS-178-69.5	c10	N71-33407	US-PATENT-CLASS-181-.5	c11	N71-28779
US-PATENT-CLASS-178-69.5	c07	N72-25173	US-PATENT-CLASS-181-33C	c07	N74-32418
US-PATENT-CLASS-178-69.5	c07	N73-13149	US-PATENT-CLASS-181-33F	c07	N74-32418
US-PATENT-CLASS-178-69.5	c09	N73-28084	US-PATENT-CLASS-181-33H	c07	N74-32418
US-PATENT-CLASS-178-69.5	c17	N76-22245	US-PATENT-CLASS-181-33HB	c07	N74-27490
US-PATENT-CLASS-178-69.5R	c07	N72-20180	US-PATENT-CLASS-181-33HC	c07	N74-32418
US-PATENT-CLASS-178-69.5R	c32	N75-26195	US-PATENT-CLASS-181-33HC	c07	N76-18117
US-PATENT-CLASS-178-69.5R	c33	N76-14371	US-PATENT-CLASS-181-33L	c07	N74-32418
US-PATENT-CLASS-178-69.5R	c60	N77-19760	US-PATENT-CLASS-181-42	c07	N74-32418

NUMBER INDEX

US-PATENT-CLASS-181-43	c07	N74-15453	US-PATENT-CLASS-200-83N	c35	N75-15931
US-PATENT-CLASS-181-52	c28	N70-41582	US-PATENT-CLASS-200-129	c33	N75-27249
US-PATENT-CLASS-181-190	c71	N79-14871	US-PATENT-CLASS-200-152	c09	N71-19610
US-PATENT-CLASS-181-213	c71	N79-14871	US-PATENT-CLASS-201-17	c44	N78-31527
US-PATENT-CLASS-181-222	c71	N79-14871	US-PATENT-CLASS-202-182	c05	N71-11207
US-PATENT-CLASS-181-293	c71	N79-14871	US-PATENT-CLASS-202-234	c15	N71-23086
US-PATENT-CLASS-182-5	c15	N73-25512	US-PATENT-CLASS-204-DIG. 11	c25	N77-32255
US-PATENT-CLASS-182-10	c15	N71-27067	US-PATENT-CLASS-204-9	c20	N74-32919
US-PATENT-CLASS-182-178	c39	N76-31562	US-PATENT-CLASS-204-9	c24	N77-19171
US-PATENT-CLASS-182-191	c05	N71-11199	US-PATENT-CLASS-204-16	c24	N77-19171
US-PATENT-CLASS-184-1	c15	N71-23048	US-PATENT-CLASS-204-20	c18	N71-16210
US-PATENT-CLASS-185-38	c37	N78-16369	US-PATENT-CLASS-204-30	c09	N71-28691
US-PATENT-CLASS-187-1	c15	N72-25453	US-PATENT-CLASS-204-32	c44	N79-11469
US-PATENT-CLASS-187-7.1	c07	N71-24742	US-PATENT-CLASS-204-32A	c33	N77-26385
US-PATENT-CLASS-187-20	c15	N72-25453	US-PATENT-CLASS-204-32R	c44	N76-14595
US-PATENT-CLASS-187-95	c15	N72-25453	US-PATENT-CLASS-204-33	c17	N71-25903
US-PATENT-CLASS-188-1	c15	N70-34861	US-PATENT-CLASS-204-33	c44	N76-14595
US-PATENT-CLASS-188-1	c15	N70-38601	US-PATENT-CLASS-204-33	c44	N79-11469
US-PATENT-CLASS-188-1	c15	N70-40354	US-PATENT-CLASS-204-37	c33	N71-29151
US-PATENT-CLASS-188-1	c14	N71-17626	US-PATENT-CLASS-204-37R	c44	N79-11469
US-PATENT-CLASS-188-1	c15	N71-22877	US-PATENT-CLASS-204-38	c17	N71-28830
US-PATENT-CLASS-188-1	c14	N71-23092	US-PATENT-CLASS-204-38A	c44	N76-14595
US-PATENT-CLASS-188-1	c15	N71-26243	US-PATENT-CLASS-204-38B	c44	N79-11469
US-PATENT-CLASS-188-1	c15	N71-27146	US-PATENT-CLASS-204-40	c44	N76-14595
US-PATENT-CLASS-188-1	c15	N71-27169	US-PATENT-CLASS-204-40	c24	N77-19171
US-PATENT-CLASS-188-1B	c15	N72-20443	US-PATENT-CLASS-204-42	c44	N76-14595
US-PATENT-CLASS-188-1B	c19	N76-22284	US-PATENT-CLASS-204-49	c15	N72-25452
US-PATENT-CLASS-188-1C	c15	N72-17450	US-PATENT-CLASS-204-49	c44	N76-14595
US-PATENT-CLASS-188-1C	c15	N72-20443	US-PATENT-CLASS-204-59	c15	N72-21466
US-PATENT-CLASS-188-1C	c15	N73-30460	US-PATENT-CLASS-204-130	c15	N72-21466
US-PATENT-CLASS-188-1C	c11	N73-32152	US-PATENT-CLASS-204-157. 1H	c25	N74-30502
US-PATENT-CLASS-188-65.1	c37	N79-10420	US-PATENT-CLASS-204-157. 1H	c37	N76-18458
US-PATENT-CLASS-188-65.5	c15	N73-25512	US-PATENT-CLASS-204-157. 1R	c25	N77-32255
US-PATENT-CLASS-188-87	c15	N71-27067	US-PATENT-CLASS-204-157. 1R	c44	N77-32580
US-PATENT-CLASS-188-88	c12	N71-16894	US-PATENT-CLASS-204-157. 1R	c44	N79-11470
US-PATENT-CLASS-188-103	c15	N71-26611	US-PATENT-CLASS-204-157. 18AG	c15	N72-25452
US-PATENT-CLASS-188-129	c15	N71-27146	US-PATENT-CLASS-204-158R	c25	N77-32255
US-PATENT-CLASS-188-151A	c15	N72-17450	US-PATENT-CLASS-204-162R	c25	N77-32255
US-PATENT-CLASS-188-163	c44	N79-14527	US-PATENT-CLASS-204-164	c26	N78-32229
US-PATENT-CLASS-188-171	c37	N74-26976	US-PATENT-CLASS-204-168	c24	N71-25555
US-PATENT-CLASS-188-266	c37	N74-26976	US-PATENT-CLASS-204-175	c26	N78-32229
US-PATENT-CLASS-188-268	c15	N73-25513	US-PATENT-CLASS-204-177	c25	N75-12087
US-PATENT-CLASS-188-269	c15	N72-20443	US-PATENT-CLASS-204-180G	c25	N78-14104
US-PATENT-CLASS-188-291	c44	N79-14527	US-PATENT-CLASS-204-180G	c25	N79-14169
US-PATENT-CLASS-189-36	c54	N77-21844	US-PATENT-CLASS-204-180P	c54	N78-14784
US-PATENT-CLASS-192-43.1	c15	N70-36947	US-PATENT-CLASS-204-180R	c25	N74-26948
US-PATENT-CLASS-195-1.8	c15	N71-17805	US-PATENT-CLASS-204-180R	c34	N74-27744
US-PATENT-CLASS-195-1.8	c51	N77-25769	US-PATENT-CLASS-204-180S	c25	N79-10163
US-PATENT-CLASS-195-1.8	c51	N79-10694	US-PATENT-CLASS-204-180S	c25	N79-14169
US-PATENT-CLASS-195-28N	c52	N79-14749	US-PATENT-CLASS-204-192	c15	N73-12487
US-PATENT-CLASS-195-66R	c06	N72-25149	US-PATENT-CLASS-204-192	c17	N73-24569
US-PATENT-CLASS-195-68	c06	N73-27086	US-PATENT-CLASS-204-192	c27	N74-13270
US-PATENT-CLASS-195-99	c04	N69-27487	US-PATENT-CLASS-204-192	c20	N74-31269
US-PATENT-CLASS-195-103.5R	c06	N71-17705	US-PATENT-CLASS-204-192	c37	N75-19684
US-PATENT-CLASS-195-103.5R	c51	N77-22794	US-PATENT-CLASS-204-192	c44	N77-14580
US-PATENT-CLASS-195-103.5L	c52	N79-14750	US-PATENT-CLASS-204-192C	c76	N79-14906
US-PATENT-CLASS-195-103.5R	c52	N79-14750	US-PATENT-CLASS-204-195	c14	N71-17575
US-PATENT-CLASS-195-103.5R	c06	N72-25149	US-PATENT-CLASS-204-195R	c33	N76-19339
US-PATENT-CLASS-195-103.5R	c25	N75-12086	US-PATENT-CLASS-204-195W	c35	N78-25391
US-PATENT-CLASS-195-103.5R	c35	N75-27330	US-PATENT-CLASS-204-222	c31	N74-23065
US-PATENT-CLASS-195-103.5R	c35	N75-33368	US-PATENT-CLASS-204-242	c33	N75-27252
US-PATENT-CLASS-195-103.5R	c51	N76-29891	US-PATENT-CLASS-204-263	c14	N71-28933
US-PATENT-CLASS-195-103.5R	c51	N77-22794	US-PATENT-CLASS-204-267	c33	N75-27252
US-PATENT-CLASS-195-120	c51	N75-13502	US-PATENT-CLASS-204-279	c33	N75-27252
US-PATENT-CLASS-195-120	c35	N75-27330	US-PATENT-CLASS-204-286	c33	N75-27252
US-PATENT-CLASS-195-127	c15	N72-21465	US-PATENT-CLASS-204-290R	c33	N75-27252
US-PATENT-CLASS-195-127	c11	N72-25284	US-PATENT-CLASS-204-292	c25	N78-10225
US-PATENT-CLASS-195-127	c14	N72-25413	US-PATENT-CLASS-204-298	c15	N70-34967
US-PATENT-CLASS-195-127	c15	N73-20514	US-PATENT-CLASS-204-298	c09	N71-26701
US-PATENT-CLASS-195-127	c05	N73-32011	US-PATENT-CLASS-204-298	c15	N72-32487
US-PATENT-CLASS-195-127	c35	N75-12272	US-PATENT-CLASS-204-298	c37	N75-19684
US-PATENT-CLASS-195-127	c51	N75-13502	US-PATENT-CLASS-204-299	c34	N74-27744
US-PATENT-CLASS-195-127	c35	N75-27330	US-PATENT-CLASS-204-299	c25	N79-10163
US-PATENT-CLASS-195-141	c35	N75-27330	US-PATENT-CLASS-204-299R	c25	N78-14104
US-PATENT-CLASS-197-188	c37	N77-19457	US-PATENT-CLASS-204-299R	c25	N79-14169
US-PATENT-CLASS-197-190	c37	N77-19457	US-PATENT-CLASS-204-301	c54	N78-14784
US-PATENT-CLASS-200-6	c10	N71-15909	US-PATENT-CLASS-204-305	c03	N71-24718
US-PATENT-CLASS-200-6	c09	N71-16089	US-PATENT-CLASS-204-324	c33	N73-16918
US-PATENT-CLASS-200-19	c09	N70-39915	US-PATENT-CLASS-204-325	c33	N73-16918
US-PATENT-CLASS-200-39	c03	N70-38713	US-PATENT-CLASS-204-328	c33	N73-16918
US-PATENT-CLASS-200-46	c74	N79-12890	US-PATENT-CLASS-205-343	c35	N75-30502
US-PATENT-CLASS-200-61	c74	N79-12890	US-PATENT-CLASS-206-439	c52	N79-14749
US-PATENT-CLASS-200-61.42	c09	N71-12518	US-PATENT-CLASS-208-8	c25	N79-11152
US-PATENT-CLASS-200-61.45	c14	N70-41812	US-PATENT-CLASS-208-10	c25	N79-11152
US-PATENT-CLASS-200-64	c15	N72-17455	US-PATENT-CLASS-209-10	c15	N71-20440
US-PATENT-CLASS-200-81.9H	c09	N72-20199	US-PATENT-CLASS-209-127R	c35	N76-22509
US-PATENT-CLASS-200-81R	c09	N72-22204	US-PATENT-CLASS-209-250	c37	N76-18456
US-PATENT-CLASS-200-82	c10	N71-23663	US-PATENT-CLASS-209-300	c37	N76-18456
US-PATENT-CLASS-200-82C	c09	N72-22204	US-PATENT-CLASS-209-305	c37	N76-18456

NUMBER INDEX

US-PATENT-CLASS-209-349	c15	N72-22483	US-PATENT-CLASS-219-124.22	c37	N79-10421
US-PATENT-CLASS-210-DIG. 23	c52	N79-14749	US-PATENT-CLASS-219-124.32	c37	N79-10421
US-PATENT-CLASS-210-DIG. 27	c27	N77-31308	US-PATENT-CLASS-219-125	c15	N71-23815
US-PATENT-CLASS-210-23F	c51	N79-10693	US-PATENT-CLASS-219-125	c37	N75-27376
US-PATENT-CLASS-210-24	c27	N77-30236	US-PATENT-CLASS-219-125.1	c37	N79-10421
US-PATENT-CLASS-210-28	c85	N79-17747	US-PATENT-CLASS-219-130	c15	N71-23798
US-PATENT-CLASS-210-40	c27	N77-31308	US-PATENT-CLASS-219-131	c15	N71-15871
US-PATENT-CLASS-210-40	c85	N79-17747	US-PATENT-CLASS-219-137	c15	N70-34814
US-PATENT-CLASS-210-45	c85	N79-17747	US-PATENT-CLASS-219-137	c37	N75-19683
US-PATENT-CLASS-210-50	c45	N79-12584	US-PATENT-CLASS-219-158	c15	N72-22491
US-PATENT-CLASS-210-54	c85	N79-17747	US-PATENT-CLASS-219-203	c11	N73-12265
US-PATENT-CLASS-210-60	c45	N79-12584	US-PATENT-CLASS-219-216	c35	N74-15831
US-PATENT-CLASS-210-63R	c25	N78-10225	US-PATENT-CLASS-219-221	c15	N72-11392
US-PATENT-CLASS-210-63R	c45	N79-12584	US-PATENT-CLASS-219-229	c15	N71-27214
US-PATENT-CLASS-210-66	c85	N79-17747	US-PATENT-CLASS-219-234	c15	N72-22491
US-PATENT-CLASS-210-67	c85	N79-17747	US-PATENT-CLASS-219-234	c15	N72-23497
US-PATENT-CLASS-210-70	c85	N79-17747	US-PATENT-CLASS-219-243	c15	N72-11392
US-PATENT-CLASS-210-71	c25	N78-10225	US-PATENT-CLASS-219-273	c15	N72-32487
US-PATENT-CLASS-210-73R	c85	N79-17747	US-PATENT-CLASS-219-275	c15	N71-20395
US-PATENT-CLASS-210-82	c34	N75-33342	US-PATENT-CLASS-219-299	c51	N79-10694
US-PATENT-CLASS-210-96H	c54	N78-14784	US-PATENT-CLASS-219-300	c37	N77-13418
US-PATENT-CLASS-210-96H	c51	N79-10693	US-PATENT-CLASS-219-302	c51	N79-10694
US-PATENT-CLASS-210-103	c05	N72-27102	US-PATENT-CLASS-219-304	c37	N77-13418
US-PATENT-CLASS-210-104	c05	N72-27102	US-PATENT-CLASS-219-347	c15	N69-27871
US-PATENT-CLASS-210-110	c05	N72-27102	US-PATENT-CLASS-219-347	c33	N70-34545
US-PATENT-CLASS-210-137	c05	N72-27102	US-PATENT-CLASS-219-348	c15	N73-27405
US-PATENT-CLASS-210-188	c12	N72-25292	US-PATENT-CLASS-219-364	c33	N71-16278
US-PATENT-CLASS-210-192	c54	N78-14784	US-PATENT-CLASS-219-378	c33	N71-25353
US-PATENT-CLASS-210-212	c03	N72-20033	US-PATENT-CLASS-219-388	c35	N74-15831
US-PATENT-CLASS-210-222	c35	N78-12390	US-PATENT-CLASS-219-411	c17	N69-25147
US-PATENT-CLASS-210-234	c34	N75-33342	US-PATENT-CLASS-219-413	c14	N71-28958
US-PATENT-CLASS-210-259	c34	N75-33342	US-PATENT-CLASS-219-477	c33	N74-14935
US-PATENT-CLASS-210-304	c34	N75-33342	US-PATENT-CLASS-219-497	c77	N75-20140
US-PATENT-CLASS-210-314	c28	N70-41447	US-PATENT-CLASS-219-499	c14	N73-26430
US-PATENT-CLASS-210-333	c34	N75-33342	US-PATENT-CLASS-219-501	c77	N75-20140
US-PATENT-CLASS-210-340	c34	N75-33342	US-PATENT-CLASS-219-505	c14	N71-27058
US-PATENT-CLASS-210-411	c34	N75-33342	US-PATENT-CLASS-219-505	c77	N75-20140
US-PATENT-CLASS-210-425	c34	N75-33342	US-PATENT-CLASS-219-522	c11	N73-12265
US-PATENT-CLASS-210-429	c37	N76-14463	US-PATENT-CLASS-219-530	c33	N71-25353
US-PATENT-CLASS-210-433H	c51	N79-10693	US-PATENT-CLASS-219-539	c33	N74-14935
US-PATENT-CLASS-210-445	c15	N72-11389	US-PATENT-CLASS-220-1	c31	N71-17680
US-PATENT-CLASS-210-500	c25	N75-12087	US-PATENT-CLASS-220-5R	c15	N72-22486
US-PATENT-CLASS-210-512	c34	N75-33342	US-PATENT-CLASS-220-9	c23	N71-22881
US-PATENT-CLASS-212-11	c32	N71-17609	US-PATENT-CLASS-220-9	c18	N71-23658
US-PATENT-CLASS-212-134	c15	N72-11388	US-PATENT-CLASS-220-9	c15	N71-23816
US-PATENT-CLASS-213-81	c37	N77-23883	US-PATENT-CLASS-220-9	c33	N71-25353
US-PATENT-CLASS-214-1CH	c37	N76-15460	US-PATENT-CLASS-220-14	c15	N69-39935
US-PATENT-CLASS-214-1	c32	N70-41367	US-PATENT-CLASS-220-15	c31	N71-15664
US-PATENT-CLASS-214-1B	c54	N75-27758	US-PATENT-CLASS-220-15	c34	N75-12222
US-PATENT-CLASS-214-1BC	c54	N77-32721	US-PATENT-CLASS-220-46	c15	N71-27068
US-PATENT-CLASS-214-1CH	c15	N72-28495	US-PATENT-CLASS-220-55	c15	N69-27502
US-PATENT-CLASS-214-1CH	c54	N75-12616	US-PATENT-CLASS-220-63	c11	N70-38182
US-PATENT-CLASS-214-1CH	c18	N75-27041	US-PATENT-CLASS-220-67	c15	N71-10577
US-PATENT-CLASS-214-1CH	c54	N75-27758	US-PATENT-CLASS-220-89	c11	N71-15960
US-PATENT-CLASS-214-1CH	c37	N77-23483	US-PATENT-CLASS-220-89	c11	N71-17600
US-PATENT-CLASS-214-1CH	c54	N77-32721	US-PATENT-CLASS-221-265	c51	N74-15778
US-PATENT-CLASS-214-1CH	c54	N78-17676	US-PATENT-CLASS-222-45	c14	N70-40233
US-PATENT-CLASS-214-1B	c37	N76-15457	US-PATENT-CLASS-222-49	c14	N71-27005
US-PATENT-CLASS-214-16.1CB	c37	N77-22480	US-PATENT-CLASS-222-61	c27	N71-29155
US-PATENT-CLASS-214-90R	c03	N72-25021	US-PATENT-CLASS-222-61	c37	N77-28487
US-PATENT-CLASS-215-247	c33	N76-19339	US-PATENT-CLASS-222-71	c15	N72-21465
US-PATENT-CLASS-219-10.49	c11	N71-15925	US-PATENT-CLASS-222-95	c37	N77-28487
US-PATENT-CLASS-219-19	c33	N70-34812	US-PATENT-CLASS-222-131	c31	N79-21225
US-PATENT-CLASS-219-34	c09	N70-33312	US-PATENT-CLASS-222-135	c15	N72-21465
US-PATENT-CLASS-219-50	c14	N73-26430	US-PATENT-CLASS-222-137	c14	N71-27005
US-PATENT-CLASS-219-62	c15	N73-28515	US-PATENT-CLASS-222-145	c37	N76-19436
US-PATENT-CLASS-219-72	c15	N71-14932	US-PATENT-CLASS-222-193	c37	N74-13178
US-PATENT-CLASS-219-78	c37	N74-11300	US-PATENT-CLASS-222-309	c15	N72-21465
US-PATENT-CLASS-219-85	c15	N72-22491	US-PATENT-CLASS-222-309	c54	N74-12779
US-PATENT-CLASS-219-85	c15	N72-23497	US-PATENT-CLASS-222-324	c54	N74-17853
US-PATENT-CLASS-219-91	c15	N71-18613	US-PATENT-CLASS-222-340	c54	N74-12779
US-PATENT-CLASS-219-91	c15	N73-32358	US-PATENT-CLASS-222-387	c54	N74-12779
US-PATENT-CLASS-219-92	c37	N76-27568	US-PATENT-CLASS-222-389	c15	N70-38996
US-PATENT-CLASS-219-92	c37	N77-11397	US-PATENT-CLASS-222-414	c14	N73-27378
US-PATENT-CLASS-219-101	c15	N73-14468	US-PATENT-CLASS-222-514	c54	N74-12779
US-PATENT-CLASS-219-101	c37	N74-11300	US-PATENT-CLASS-224-25	c05	N71-12351
US-PATENT-CLASS-219-107	c15	N73-28515	US-PATENT-CLASS-224-25A	c05	N72-23085
US-PATENT-CLASS-219-107	c37	N74-11300	US-PATENT-CLASS-224-444	c54	N74-17853
US-PATENT-CLASS-219-109	c15	N72-23497	US-PATENT-CLASS-225-1	c15	N71-17628
US-PATENT-CLASS-219-117	c15	N73-32358	US-PATENT-CLASS-225-2	c26	N71-14354
US-PATENT-CLASS-219-118	c37	N76-27568	US-PATENT-CLASS-226-58	c14	N71-28935
US-PATENT-CLASS-219-118	c37	N77-11397	US-PATENT-CLASS-226-190	c08	N71-19420
US-PATENT-CLASS-219-119	c15	N73-14468	US-PATENT-CLASS-228-1	c37	N75-25185
US-PATENT-CLASS-219-121	c15	N69-21471	US-PATENT-CLASS-228-2.5	c37	N79-13364
US-PATENT-CLASS-219-121	c33	N70-34540	US-PATENT-CLASS-228-7	c15	N71-15607
US-PATENT-CLASS-219-121	c15	N71-19486	US-PATENT-CLASS-228-8	c15	N71-23050
US-PATENT-CLASS-219-121	c16	N71-20400	US-PATENT-CLASS-228-8	c37	N79-10421
US-PATENT-CLASS-219-121	c15	N71-27135	US-PATENT-CLASS-228-9	c15	N71-20393
US-PATENT-CLASS-219-121P	c15	N72-32487	US-PATENT-CLASS-228-13	c18	N79-11108

NUMBER INDEX

US-PATENT-CLASS-228-15.1	c18	N79-11108	US-PATENT-CLASS-235-151.1	c08	N72-31226
US-PATENT-CLASS-228-50	c15	N70-39924	US-PATENT-CLASS-235-151.3	c52	N74-22771
US-PATENT-CLASS-228-50	c15	N70-40204	US-PATENT-CLASS-235-151.3	c38	N78-17395
US-PATENT-CLASS-228-53	c15	N71-27214	US-PATENT-CLASS-235-151.3	c38	N78-17396
US-PATENT-CLASS-228-57	c15	N72-22491	US-PATENT-CLASS-235-151.13	c25	N76-18245
US-PATENT-CLASS-228-107	c37	N79-13364	US-PATENT-CLASS-235-151.27	c08	N73-25206
US-PATENT-CLASS-228-124	c26	N77-29260	US-PATENT-CLASS-235-151.31	c10	N73-25240
US-PATENT-CLASS-228-173	c18	N79-11108	US-PATENT-CLASS-235-151.34	c35	N76-14431
US-PATENT-CLASS-228-190	c24	N75-28135	US-PATENT-CLASS-235-152	c07	N71-24741
US-PATENT-CLASS-228-190	c26	N77-28265	US-PATENT-CLASS-235-152	c08	N72-20176
US-PATENT-CLASS-228-193	c24	N75-28135	US-PATENT-CLASS-235-152	c08	N72-22167
US-PATENT-CLASS-228-193	c37	N76-18455	US-PATENT-CLASS-235-152	c08	N72-25210
US-PATENT-CLASS-228-194	c26	N77-28265	US-PATENT-CLASS-235-152	c08	N73-12175
US-PATENT-CLASS-228-206	c37	N76-18455	US-PATENT-CLASS-235-152	c09	N73-13209
US-PATENT-CLASS-228-214	c37	N76-18455	US-PATENT-CLASS-235-152	c08	N73-26175
US-PATENT-CLASS-228-232	c26	N77-28265	US-PATENT-CLASS-235-152	c60	N77-14751
US-PATENT-CLASS-228-238	c37	N76-18455	US-PATENT-CLASS-235-152IE	c08	N73-32081
US-PATENT-CLASS-228-263	c26	N77-29260	US-PATENT-CLASS-235-153	c08	N71-24633
US-PATENT-CLASS-229-DIG.11	c32	N73-13921	US-PATENT-CLASS-235-153	c08	N72-22166
US-PATENT-CLASS-230-54	c11	N72-22245	US-PATENT-CLASS-235-153AE	c60	N76-21914
US-PATENT-CLASS-230-162	c33	N71-17610	US-PATENT-CLASS-235-153AK	c62	N74-14920
US-PATENT-CLASS-230-221	c11	N72-22245	US-PATENT-CLASS-235-154	c08	N70-34778
US-PATENT-CLASS-233-DIG.1	c34	N75-26282	US-PATENT-CLASS-235-154	c10	N71-23662
US-PATENT-CLASS-233-6	c34	N75-26282	US-PATENT-CLASS-235-154	c08	N72-18184
US-PATENT-CLASS-233-11	c15	N71-16079	US-PATENT-CLASS-235-154	c08	N72-25206
US-PATENT-CLASS-233-20RP	c34	N75-26282	US-PATENT-CLASS-235-155	c08	N71-24890
US-PATENT-CLASS-233-25	c34	N75-26282	US-PATENT-CLASS-235-155	c08	N72-21197
US-PATENT-CLASS-233-46	c34	N75-26282	US-PATENT-CLASS-235-155	c08	N73-12176
US-PATENT-CLASS-235.150.27	c04	N74-13420	US-PATENT-CLASS-235-156	c08	N71-18693
US-PATENT-CLASS-235-10.2	c08	N73-25206	US-PATENT-CLASS-235-156	c60	N75-13539
US-PATENT-CLASS-235-61.6	c01	N71-13411	US-PATENT-CLASS-235-156	c32	N76-21366
US-PATENT-CLASS-235-61.6	c15	N71-21179	US-PATENT-CLASS-235-156	c32	N77-10392
US-PATENT-CLASS-235-61NV	c08	N72-11172	US-PATENT-CLASS-235-156	c38	N78-17395
US-PATENT-CLASS-235-61NV	c35	N76-29552	US-PATENT-CLASS-235-156	c38	N78-17396
US-PATENT-CLASS-235-70	c04	N78-17031	US-PATENT-CLASS-235-158	c08	N71-19437
US-PATENT-CLASS-235-78H	c35	N76-29552	US-PATENT-CLASS-235-164	c08	N71-33110
US-PATENT-CLASS-235-88H	c35	N76-29552	US-PATENT-CLASS-235-164	c08	N73-26175
US-PATENT-CLASS-235-92	c08	N71-22897	US-PATENT-CLASS-235-164	c60	N74-20836
US-PATENT-CLASS-235-92	c08	N71-24891	US-PATENT-CLASS-235-175	c08	N71-18602
US-PATENT-CLASS-235-92	c10	N71-27137	US-PATENT-CLASS-235-175	c08	N71-33110
US-PATENT-CLASS-235-92	c14	N71-27215	US-PATENT-CLASS-235-176	c08	N70-34787
US-PATENT-CLASS-235-92CA	c33	N74-10223	US-PATENT-CLASS-235-181	c07	N71-21476
US-PATENT-CLASS-235-92CA	c38	N77-17495	US-PATENT-CLASS-235-181	c07	N73-13149
US-PATENT-CLASS-235-92CC	c08	N72-20176	US-PATENT-CLASS-235-181	c35	N75-21582
US-PATENT-CLASS-235-92CT	c38	N77-17495	US-PATENT-CLASS-235-181	c33	N75-26243
US-PATENT-CLASS-235-92CV	c08	N73-25206	US-PATENT-CLASS-235-181	c43	N77-10584
US-PATENT-CLASS-235-92DE	c08	N72-20176	US-PATENT-CLASS-235-181	c38	N78-17395
US-PATENT-CLASS-235-92DH	c08	N72-20176	US-PATENT-CLASS-235-183	c08	N72-22165
US-PATENT-CLASS-235-92DH	c33	N74-10223	US-PATENT-CLASS-235-184	c74	N76-18913
US-PATENT-CLASS-235-92DH	c33	N75-19519	US-PATENT-CLASS-235-186	c10	N73-26230
US-PATENT-CLASS-235-92DH	c08	N73-25206	US-PATENT-CLASS-235-194	c09	N71-19480
US-PATENT-CLASS-235-92DH	c38	N77-17495	US-PATENT-CLASS-235-194	c08	N72-22165
US-PATENT-CLASS-235-92EA	c08	N73-25206	US-PATENT-CLASS-235-194	c10	N73-26230
US-PATENT-CLASS-235-92EV	c08	N73-25206	US-PATENT-CLASS-235-197	c08	N72-22165
US-PATENT-CLASS-235-92FQ	c08	N73-20217	US-PATENT-CLASS-235-197	c09	N72-23173
US-PATENT-CLASS-235-92IG	c08	N72-20176	US-PATENT-CLASS-235-197	c10	N73-20253
US-PATENT-CLASS-235-92IG	c33	N75-19519	US-PATENT-CLASS-235-197	c10	N73-26230
US-PATENT-CLASS-235-92HT	c08	N72-31226	US-PATENT-CLASS-235-197	c60	N75-13539
US-PATENT-CLASS-235-92HT	c32	N73-26910	US-PATENT-CLASS-235-201	c10	N71-25899
US-PATENT-CLASS-235-92PE	c37	N74-21056	US-PATENT-CLASS-236-1	c33	N71-16357
US-PATENT-CLASS-235-92R	c08	N72-20176	US-PATENT-CLASS-236-49	c31	N74-27902
US-PATENT-CLASS-235-92R	c08	N73-20217	US-PATENT-CLASS-236-68	c15	N72-12409
US-PATENT-CLASS-235-92R	c08	N73-25206	US-PATENT-CLASS-237-1A	c44	N76-14602
US-PATENT-CLASS-235-92R	c33	N75-19519	US-PATENT-CLASS-237-1A	c44	N78-10554
US-PATENT-CLASS-235-92R	c38	N77-17495	US-PATENT-CLASS-237-1A	c44	N78-15560
US-PATENT-CLASS-235-92SB	c37	N74-21056	US-PATENT-CLASS-237-1A	c44	N78-17460
US-PATENT-CLASS-235-92SB	c33	N76-14373	US-PATENT-CLASS-237-1A	c44	N78-31525
US-PATENT-CLASS-235-92T	c03	N72-25020	US-PATENT-CLASS-237-60	c34	N76-17317
US-PATENT-CLASS-235-92T	c08	N73-20217	US-PATENT-CLASS-238-1	c05	N71-28619
US-PATENT-CLASS-235-92T	c33	N75-19519	US-PATENT-CLASS-238-134	c85	N74-34672
US-PATENT-CLASS-235-92VA	c33	N75-19519	US-PATENT-CLASS-239-2R	c45	N79-10570
US-PATENT-CLASS-235-150.1	c08	N71-29033	US-PATENT-CLASS-239-14	c45	N79-10570
US-PATENT-CLASS-235-150.1	c08	N72-31226	US-PATENT-CLASS-239-127.1	c28	N71-23968
US-PATENT-CLASS-235-150.1	c32	N77-10392	US-PATENT-CLASS-239-127.1	c28	N73-32606
US-PATENT-CLASS-235-150.2	c08	N71-29033	US-PATENT-CLASS-239-127.1	c34	N79-13288
US-PATENT-CLASS-235-150.2	c35	N77-20399	US-PATENT-CLASS-239-127.1	c34	N79-13289
US-PATENT-CLASS-235-150.3	c33	N74-10223	US-PATENT-CLASS-239-127.3	c20	N76-14191
US-PATENT-CLASS-235-150.22	c02	N71-13421	US-PATENT-CLASS-239-171	c37	N77-13418
US-PATENT-CLASS-235-150.22	c04	N74-13420	US-PATENT-CLASS-239-265.11	c18	N71-21068
US-PATENT-CLASS-235-150.25	c21	N71-21688	US-PATENT-CLASS-239-265.11	c07	N74-33218
US-PATENT-CLASS-235-150.25	c35	N77-20399	US-PATENT-CLASS-239-265.11	c07	N76-18117
US-PATENT-CLASS-235-150.26	c04	N74-13420	US-PATENT-CLASS-239-265.17	c07	N74-27490
US-PATENT-CLASS-235-150.27	c08	N71-29033	US-PATENT-CLASS-239-265.19	c28	N71-21893
US-PATENT-CLASS-235-150.52	c08	N72-22165	US-PATENT-CLASS-239-265.19	c28	N72-11708
US-PATENT-CLASS-235-150.53	c08	N72-22165	US-PATENT-CLASS-239-265.25	c07	N78-27121
US-PATENT-CLASS-235-150.53	c07	N73-13149	US-PATENT-CLASS-239-265.25	c09	N78-31129
US-PATENT-CLASS-235-150.53	c33	N75-26243	US-PATENT-CLASS-239-265.33	c07	N78-27121
US-PATENT-CLASS-235-151	c37	N74-21056	US-PATENT-CLASS-239-265.39	c07	N79-14097
US-PATENT-CLASS-235-151.1	c08	N71-29033	US-PATENT-CLASS-239-265.43	c28	N71-16224

NUMBER INDEX

US-PATENT-CLASS-239-265.43	c28 N72-11708	US-PATENT-CLASS-244-1.55	c03 N73-20040
US-PATENT-CLASS-239-416	c15 N69-23185	US-PATENT-CLASS-244-1A	c33 N77-10429
US-PATENT-CLASS-239-416	c15 N71-17654	US-PATENT-CLASS-244-1SA	c21 N72-21624
US-PATENT-CLASS-239-418	c28 N72-23809	US-PATENT-CLASS-244-1SA	c21 N72-25595
US-PATENT-CLASS-239-424	c15 N72-25455	US-PATENT-CLASS-244-1SA	c03 N73-20039
US-PATENT-CLASS-239-433	c28 N72-23809	US-PATENT-CLASS-244-1SA	c15 N73-25513
US-PATENT-CLASS-239-543	c28 N72-23809	US-PATENT-CLASS-244-1SA	c21 N73-30640
US-PATENT-CLASS-240-1.2	c11 N70-33329	US-PATENT-CLASS-244-1SA	c19 N74-15089
US-PATENT-CLASS-240-11.2	c09 N71-26787	US-PATENT-CLASS-244-1SA	c35 N74-28097
US-PATENT-CLASS-240-11.4	c09 N71-26787	US-PATENT-CLASS-244-1SB	c15 N73-12486
US-PATENT-CLASS-240-41.35R	c74 N77-21941	US-PATENT-CLASS-244-1SC	c31 N73-32750
US-PATENT-CLASS-240-41B	c36 N75-27364	US-PATENT-CLASS-244-1SC	c34 N75-12222
US-PATENT-CLASS-240-41B	c74 N77-21941	US-PATENT-CLASS-244-1SD	c31 N73-26876
US-PATENT-CLASS-240-46.13	c74 N77-21941	US-PATENT-CLASS-244-1SD	c37 N74-27903
US-PATENT-CLASS-240-47	c34 N74-23066	US-PATENT-CLASS-244-1SD	c15 N77-10112
US-PATENT-CLASS-240-51.11	c09 N71-26787	US-PATENT-CLASS-244-1SS	c11 N73-13257
US-PATENT-CLASS-242-54	c15 N72-18477	US-PATENT-CLASS-244-1SS	c03 N73-20039
US-PATENT-CLASS-242-55.19	c14 N70-41647	US-PATENT-CLASS-244-1SS	c14 N73-27378
US-PATENT-CLASS-242-55.19	c07 N71-10609	US-PATENT-CLASS-244-1SS	c31 N73-30829
US-PATENT-CLASS-242-57	c37 N77-14479	US-PATENT-CLASS-244-1SS	c31 N73-32750
US-PATENT-CLASS-242-187	c37 N77-14479	US-PATENT-CLASS-244-1SS	c33 N73-32818
US-PATENT-CLASS-242-192	c14 N71-23698	US-PATENT-CLASS-244-1SS	c18 N74-22136
US-PATENT-CLASS-242-193	c37 N77-14479	US-PATENT-CLASS-244-1SS	c18 N74-27397
US-PATENT-CLASS-242-204	c37 N77-14479	US-PATENT-CLASS-244-1SS	c73 N75-30876
US-PATENT-CLASS-242-210	c37 N77-14479	US-PATENT-CLASS-244-3.14	c31 N71-17691
US-PATENT-CLASS-244-1SS	c03 N72-20031	US-PATENT-CLASS-244-3.16	c19 N74-15089
US-PATENT-CLASS-244-1	c31 N69-27499	US-PATENT-CLASS-244-3.21	c30 N72-17873
US-PATENT-CLASS-244-1	c03 N70-33343	US-PATENT-CLASS-244-3.21	c15 N76-14158
US-PATENT-CLASS-244-1	c33 N70-33344	US-PATENT-CLASS-244-3.21	c15 N77-10113
US-PATENT-CLASS-244-1	c03 N70-34157	US-PATENT-CLASS-244-3.21	c35 N77-20399
US-PATENT-CLASS-244-1	c31 N70-34176	US-PATENT-CLASS-244-3.22	c31 N71-17629
US-PATENT-CLASS-244-1	c21 N70-34295	US-PATENT-CLASS-244-3.22	c28 N72-22769
US-PATENT-CLASS-244-1	c31 N70-34296	US-PATENT-CLASS-244-4	c20 N76-21275
US-PATENT-CLASS-244-1	c21 N70-35395	US-PATENT-CLASS-244-4	c05 N69-21380
US-PATENT-CLASS-244-1	c31 N70-36410	US-PATENT-CLASS-244-4	c05 N71-12336
US-PATENT-CLASS-244-1	c33 N70-36617	US-PATENT-CLASS-244-4	c28 N71-27585
US-PATENT-CLASS-244-1	c21 N70-36943	US-PATENT-CLASS-244-12	c02 N70-33332
US-PATENT-CLASS-244-1	c31 N70-37924	US-PATENT-CLASS-244-13	c01 N71-23497
US-PATENT-CLASS-244-1	c31 N70-37938	US-PATENT-CLASS-244-13	c02 N73-26005
US-PATENT-CLASS-244-1	c31 N70-37986	US-PATENT-CLASS-244-13	c05 N75-25914
US-PATENT-CLASS-244-1	c31 N70-38676	US-PATENT-CLASS-244-14	c14 N70-33322
US-PATENT-CLASS-244-1	c30 N70-40016	US-PATENT-CLASS-244-15	c05 N75-25914
US-PATENT-CLASS-244-1	c31 N70-41373	US-PATENT-CLASS-244-15.5	c31 N72-18859
US-PATENT-CLASS-244-1	c31 N70-41588	US-PATENT-CLASS-244-16	c02 N70-41863
US-PATENT-CLASS-244-1	c31 N70-41631	US-PATENT-CLASS-244-17.13	c02 N73-19004
US-PATENT-CLASS-244-1	c31 N70-41855	US-PATENT-CLASS-244-23	c02 N71-11039
US-PATENT-CLASS-244-1	c21 N70-41856	US-PATENT-CLASS-244-23A	c21 N72-25595
US-PATENT-CLASS-244-1	c31 N70-42075	US-PATENT-CLASS-244-23D	c34 N76-18364
US-PATENT-CLASS-244-1	c03 N71-11058	US-PATENT-CLASS-244-31	c02 N71-11037
US-PATENT-CLASS-244-1	c33 N71-14035	US-PATENT-CLASS-244-31	c31 N71-16081
US-PATENT-CLASS-244-1	c21 N71-14132	US-PATENT-CLASS-244-31	c34 N74-23039
US-PATENT-CLASS-244-1	c21 N71-14159	US-PATENT-CLASS-244-32	c02 N73-13008
US-PATENT-CLASS-244-1	c21 N71-15583	US-PATENT-CLASS-244-35	c01 N71-13410
US-PATENT-CLASS-244-1	c31 N71-15663	US-PATENT-CLASS-244-35R	c02 N76-22154
US-PATENT-CLASS-244-1	c31 N71-15674	US-PATENT-CLASS-244-40R	c02 N76-22154
US-PATENT-CLASS-244-1	c31 N71-15676	US-PATENT-CLASS-244-42	c02 N70-42016
US-PATENT-CLASS-244-1	c02 N71-16087	US-PATENT-CLASS-244-42	c02 N71-26110
US-PATENT-CLASS-244-1	c31 N71-16222	US-PATENT-CLASS-244-42CG	c33 N77-10429
US-PATENT-CLASS-244-1	c31 N71-16345	US-PATENT-CLASS-244-42DA	c05 N75-25914
US-PATENT-CLASS-244-1	c31 N71-16346	US-PATENT-CLASS-244-43	c02 N70-33255
US-PATENT-CLASS-244-1	c31 N71-17679	US-PATENT-CLASS-244-43	c02 N71-11043
US-PATENT-CLASS-244-1	c15 N71-17693	US-PATENT-CLASS-244-44	c02 N71-11038
US-PATENT-CLASS-244-1	c31 N71-17729	US-PATENT-CLASS-244-45	c02 N71-12243
US-PATENT-CLASS-244-1	c15 N71-19214	US-PATENT-CLASS-244-45A	c05 N78-32086
US-PATENT-CLASS-244-1	c03 N71-20273	US-PATENT-CLASS-244-46	c02 N70-33266
US-PATENT-CLASS-244-1	c31 N71-20396	US-PATENT-CLASS-244-46	c02 N70-33286
US-PATENT-CLASS-244-1	c31 N71-21064	US-PATENT-CLASS-244-46	c02 N70-34178
US-PATENT-CLASS-244-1	c14 N71-21082	US-PATENT-CLASS-244-46	c02 N70-34858
US-PATENT-CLASS-244-1	c21 N71-21708	US-PATENT-CLASS-244-46	c31 N70-38010
US-PATENT-CLASS-244-1	c31 N71-21881	US-PATENT-CLASS-244-46	c02 N70-38011
US-PATENT-CLASS-244-1	c33 N71-22792	US-PATENT-CLASS-244-46	c02 N71-11041
US-PATENT-CLASS-244-1	c31 N71-22968	US-PATENT-CLASS-244-46	c02 N73-26005
US-PATENT-CLASS-244-1	c31 N71-22969	US-PATENT-CLASS-244-46	c05 N76-29217
US-PATENT-CLASS-244-1	c31 N71-23009	US-PATENT-CLASS-244-46	c05 N78-32086
US-PATENT-CLASS-244-1	c14 N71-23040	US-PATENT-CLASS-244-46	c08 N79-14108
US-PATENT-CLASS-244-1	c31 N71-23912	US-PATENT-CLASS-244-48	c05 N79-12061
US-PATENT-CLASS-244-1	c31 N71-28315	US-PATENT-CLASS-244-50	c02 N70-34160
US-PATENT-CLASS-244-1	c15 N71-28600	US-PATENT-CLASS-244-51	c02 N70-34856
US-PATENT-CLASS-244-1	c05 N71-24728	US-PATENT-CLASS-244-53	c28 N71-15563
US-PATENT-CLASS-244-1	c33 N71-25353	US-PATENT-CLASS-244-53A	c07 N78-18066
US-PATENT-CLASS-244-1	c31 N71-25434	US-PATENT-CLASS-244-53B	c02 N74-20646
US-PATENT-CLASS-244-1	c31 N71-26537	US-PATENT-CLASS-244-53B	c07 N75-24736
US-PATENT-CLASS-244-1	c15 N71-26611	US-PATENT-CLASS-244-53B	c07 N77-18154
US-PATENT-CLASS-244-1	c28 N71-27095	US-PATENT-CLASS-244-54	c07 N78-18066
US-PATENT-CLASS-244-1	c21 N71-27324	US-PATENT-CLASS-244-54	c07 N79-14096
US-PATENT-CLASS-244-1	c33 N71-28903	US-PATENT-CLASS-244-55	c02 N73-26005
US-PATENT-CLASS-244-1	c15 N71-28936	US-PATENT-CLASS-244-55	c05 N75-25914
US-PATENT-CLASS-244-1	c31 N71-29050	US-PATENT-CLASS-244-57	c15 N71-26611
US-PATENT-CLASS-244-1	c31 N71-33160	US-PATENT-CLASS-244-63	c09 N77-19076

NUMBER INDEX

US-PATENT-CLASS-244-75A	.....	c02	N73-26004	US-PATENT-CLASS-248-18	.....	c14	N69-27486
US-PATENT-CLASS-244-75B	.....	c05	N75-12930	US-PATENT-CLASS-248-18	.....	c15	N72-11391
US-PATENT-CLASS-244-76	.....	c21	N70-34539	US-PATENT-CLASS-248-20	.....	c15	N72-11391
US-PATENT-CLASS-244-76	.....	c02	N71-13422	US-PATENT-CLASS-248-22	.....	c19	N76-22284
US-PATENT-CLASS-244-76	.....	c02	N71-20570	US-PATENT-CLASS-248-23	.....	c18	N74-27397
US-PATENT-CLASS-244-76C	.....	c02	N73-26004	US-PATENT-CLASS-248-27	.....	c15	N71-20813
US-PATENT-CLASS-244-77	.....	c32	N71-23971	US-PATENT-CLASS-248-119	.....	c11	N70-35383
US-PATENT-CLASS-244-77A	.....	c04	N74-13420	US-PATENT-CLASS-248-178	.....	c15	N70-41310
US-PATENT-CLASS-244-77B	.....	c04	N74-13420	US-PATENT-CLASS-248-178	.....	c37	N78-27425
US-PATENT-CLASS-244-77D	.....	c02	N73-19004	US-PATENT-CLASS-248-183	.....	c14	N71-26627
US-PATENT-CLASS-244-77F	.....	c02	N73-26004	US-PATENT-CLASS-248-183	.....	c15	N72-11386
US-PATENT-CLASS-244-77G	.....	c02	N73-26004	US-PATENT-CLASS-248-186	.....	c37	N78-27425
US-PATENT-CLASS-244-79	.....	c04	N76-26175	US-PATENT-CLASS-248-188.4	.....	c15	N72-27484
US-PATENT-CLASS-244-82	.....	c05	N79-12061	US-PATENT-CLASS-248-188.9	.....	c31	N70-38159
US-PATENT-CLASS-244-83	.....	c21	N70-33279	US-PATENT-CLASS-248-278	.....	c15	N72-11386
US-PATENT-CLASS-244-83	.....	c15	N71-23255	US-PATENT-CLASS-248-317	.....	c11	N69-27466
US-PATENT-CLASS-244-83	.....	c31	N71-33160	US-PATENT-CLASS-248-346	.....	c14	N70-39898
US-PATENT-CLASS-244-83	.....	c08	N74-10942	US-PATENT-CLASS-248-358	.....	c15	N70-40156
US-PATENT-CLASS-244-83B	.....	c05	N75-12930	US-PATENT-CLASS-248-358	.....	c23	N71-15673
US-PATENT-CLASS-244-90	.....	c02	N71-27088	US-PATENT-CLASS-248-358	.....	c15	N71-24694
US-PATENT-CLASS-244-90B	.....	c08	N74-30421	US-PATENT-CLASS-248-358B	.....	c37	N75-18573
US-PATENT-CLASS-244-90B	.....	c05	N79-12061	US-PATENT-CLASS-248-358B	.....	c19	N76-22284
US-PATENT-CLASS-244-90B	.....	c08	N79-14108	US-PATENT-CLASS-248-360	.....	c15	N71-17649
US-PATENT-CLASS-244-91	.....	c08	N74-30421	US-PATENT-CLASS-248-361	.....	c05	N71-28619
US-PATENT-CLASS-244-100	.....	c15	N70-34850	US-PATENT-CLASS-248-362	.....	c37	N76-21554
US-PATENT-CLASS-244-100	.....	c31	N70-36654	US-PATENT-CLASS-248-363	.....	c37	N78-17383
US-PATENT-CLASS-244-100	.....	c31	N70-36845	US-PATENT-CLASS-248-363	.....	c37	N76-21554
US-PATENT-CLASS-244-100	.....	c02	N70-41589	US-PATENT-CLASS-248-487	.....	c15	N72-11386
US-PATENT-CLASS-244-103	.....	c02	N70-36825	US-PATENT-CLASS-249-59	.....	c31	N75-13111
US-PATENT-CLASS-244-113	.....	c02	N70-37939	US-PATENT-CLASS-249-83	.....	c31	N74-32920
US-PATENT-CLASS-244-113	.....	c31	N71-25434	US-PATENT-CLASS-249-95	.....	c31	N74-32920
US-PATENT-CLASS-244-113	.....	c02	N77-10001	US-PATENT-CLASS-249-144	.....	c31	N75-13111
US-PATENT-CLASS-244-114	.....	c21	N72-22619	US-PATENT-CLASS-249-145	.....	c31	N74-32920
US-PATENT-CLASS-244-117	.....	c31	N70-33242	US-PATENT-CLASS-249-145	.....	c31	N75-13111
US-PATENT-CLASS-244-117	.....	c33	N72-17947	US-PATENT-CLASS-249-184	.....	c31	N74-32920
US-PATENT-CLASS-244-117A	.....	c33	N73-25952	US-PATENT-CLASS-250-41.9	.....	c06	N71-13461
US-PATENT-CLASS-244-117A	.....	c34	N76-17317	US-PATENT-CLASS-250-41.9	.....	c24	N71-16095
US-PATENT-CLASS-244-117A	.....	c37	N76-19437	US-PATENT-CLASS-250-41.9	.....	c14	N71-23041
US-PATENT-CLASS-244-117A	.....	c34	N77-18382	US-PATENT-CLASS-250-41.9	.....	c14	N71-28863
US-PATENT-CLASS-244-121	.....	c27	N79-12221	US-PATENT-CLASS-250-41.9	.....	c14	N72-17328
US-PATENT-CLASS-244-122	.....	c05	N71-20718	US-PATENT-CLASS-250-41.9	.....	c14	N73-32325
US-PATENT-CLASS-244-123	.....	c24	N77-28225	US-PATENT-CLASS-250-41.9D	.....	c14	N72-29464
US-PATENT-CLASS-244-127	.....	c34	N74-23039	US-PATENT-CLASS-250-41.9G	.....	c14	N73-12444
US-PATENT-CLASS-244-130	.....	c02	N77-10001	US-PATENT-CLASS-250-41.9S	.....	c14	N73-12444
US-PATENT-CLASS-244-135	.....	c31	N70-42015	US-PATENT-CLASS-250-41.9S	.....	c14	N71-28992
US-PATENT-CLASS-244-135	.....	c15	N73-12486	US-PATENT-CLASS-250-43.5	.....	c27	N71-16348
US-PATENT-CLASS-244-135	.....	c14	N73-27378	US-PATENT-CLASS-250-43.5	.....	c15	N71-24896
US-PATENT-CLASS-244-135B	.....	c34	N76-17317	US-PATENT-CLASS-250-43.5	.....	c14	N71-25901
US-PATENT-CLASS-244-137P	.....	c31	N73-26876	US-PATENT-CLASS-250-43.5FC	.....	c14	N72-11365
US-PATENT-CLASS-244-137P	.....	c37	N76-22540	US-PATENT-CLASS-250-43.5R	.....	c14	N71-27090
US-PATENT-CLASS-244-138	.....	c01	N69-39981	US-PATENT-CLASS-250-43.5R	.....	c14	N72-21408
US-PATENT-CLASS-244-138	.....	c02	N70-41630	US-PATENT-CLASS-250-43.5R	.....	c06	N72-25146
US-PATENT-CLASS-244-138	.....	c31	N71-16085	US-PATENT-CLASS-250-43.5R	.....	c06	N72-31141
US-PATENT-CLASS-244-138	.....	c31	N71-25434	US-PATENT-CLASS-250-49.5	.....	c14	N69-39982
US-PATENT-CLASS-244-138	.....	c31	N71-28851	US-PATENT-CLASS-250-49.5	.....	c14	N71-28863
US-PATENT-CLASS-244-139	.....	c31	N73-13898	US-PATENT-CLASS-250-49.5	.....	c14	N72-17328
US-PATENT-CLASS-244-139	.....	c02	N76-16014	US-PATENT-CLASS-250-49.5B	.....	c24	N72-11595
US-PATENT-CLASS-244-140	.....	c02	N70-38009	US-PATENT-CLASS-250-49.5B	.....	c24	N72-11595
US-PATENT-CLASS-244-145	.....	c02	N74-10034	US-PATENT-CLASS-250-51	.....	c24	N72-11595
US-PATENT-CLASS-244-150	.....	c15	N71-24600	US-PATENT-CLASS-250-51.5	.....	c23	N73-13662
US-PATENT-CLASS-244-151B	.....	c33	N74-22865	US-PATENT-CLASS-250-51.5	.....	c14	N73-28491
US-PATENT-CLASS-244-152	.....	c02	N70-36804	US-PATENT-CLASS-250-52	.....	c15	N71-15606
US-PATENT-CLASS-244-155	.....	c30	N73-12884	US-PATENT-CLASS-250-52	.....	c11	N71-23042
US-PATENT-CLASS-244-155	.....	c31	N73-14854	US-PATENT-CLASS-250-52	.....	c24	N72-11595
US-PATENT-CLASS-244-158	.....	c37	N76-22540	US-PATENT-CLASS-250-52	.....	c23	N73-13662
US-PATENT-CLASS-244-158	.....	c27	N79-12221	US-PATENT-CLASS-250-65F	.....	c15	N72-25452
US-PATENT-CLASS-244-159	.....	c18	N79-11108	US-PATENT-CLASS-250-65F	.....	c14	N73-30389
US-PATENT-CLASS-244-160	.....	c27	N79-12221	US-PATENT-CLASS-250-71	.....	c14	N70-41676
US-PATENT-CLASS-244-161	.....	c18	N76-14186	US-PATENT-CLASS-250-71.5	.....	c14	N72-17328
US-PATENT-CLASS-244-161	.....	c37	N76-22540	US-PATENT-CLASS-250-71.5R	.....	c14	N72-29464
US-PATENT-CLASS-244-161	.....	c37	N77-23483	US-PATENT-CLASS-250-71R	.....	c06	N73-16106
US-PATENT-CLASS-244-161	.....	c15	N78-25119	US-PATENT-CLASS-250-83	.....	c14	N69-27484
US-PATENT-CLASS-244-162	.....	c18	N75-19329	US-PATENT-CLASS-250-83	.....	c14	N69-39937
US-PATENT-CLASS-244-162	.....	c18	N76-17185	US-PATENT-CLASS-250-83	.....	c09	N71-18830
US-PATENT-CLASS-244-163	.....	c37	N76-19437	US-PATENT-CLASS-250-83	.....	c05	N71-19440
US-PATENT-CLASS-244-165	.....	c15	N76-14158	US-PATENT-CLASS-250-83	.....	c14	N71-20430
US-PATENT-CLASS-244-165	.....	c35	N77-20399	US-PATENT-CLASS-250-83	.....	c14	N71-23401
US-PATENT-CLASS-244-167	.....	c15	N78-25119	US-PATENT-CLASS-250-83	.....	c09	N71-27232
US-PATENT-CLASS-244-169	.....	c15	N77-10113	US-PATENT-CLASS-250-83.3	.....	c21	N70-33181
US-PATENT-CLASS-244-171	.....	c15	N77-10113	US-PATENT-CLASS-250-83.3	.....	c21	N70-34297
US-PATENT-CLASS-244-171	.....	c35	N77-20399	US-PATENT-CLASS-250-83.3	.....	c14	N71-15599
US-PATENT-CLASS-244-172	.....	c18	N76-17185	US-PATENT-CLASS-250-83.3	.....	c14	N71-18699
US-PATENT-CLASS-244-173	.....	c44	N75-32581	US-PATENT-CLASS-250-83.3	.....	c18	N71-21088
US-PATENT-CLASS-244-218	.....	c05	N78-32086	US-PATENT-CLASS-250-83.3	.....	c09	N71-22985
US-PATENT-CLASS-244-218	.....	c08	N79-14108	US-PATENT-CLASS-250-83.3	.....	c14	N71-25901
US-PATENT-CLASS-244-327	.....	c08	N74-30421	US-PATENT-CLASS-250-83.3	.....	c14	N71-26475
US-PATENT-CLASS-247-171	.....	c35	N75-23910	US-PATENT-CLASS-250-83.3	.....	c14	N71-27323
US-PATENT-CLASS-248-14	.....	c15	N72-17454	US-PATENT-CLASS-250-83.3	.....	c14	N72-17328
US-PATENT-CLASS-248-16	.....	c18	N74-27397	US-PATENT-CLASS-250-83.3	.....	c35	N75-27329

NUMBER INDEX

US-PATENT-CLASS-250-83.3H	c14	N72-21408	US-PATENT-CLASS-250-213VT	c74	N78-18905
US-PATENT-CLASS-250-83.3H	c14	N72-24477	US-PATENT-CLASS-250-214	c14	N73-25462
US-PATENT-CLASS-250-83.3H	c14	N73-12445	US-PATENT-CLASS-250-214	c14	N73-25462
US-PATENT-CLASS-250-83.3H	c14	N73-20475	US-PATENT-CLASS-250-214	c35	N74-15090
US-PATENT-CLASS-250-83.3H	c14	N73-25462	US-PATENT-CLASS-250-214A	c33	N77-14335
US-PATENT-CLASS-250-83.3H	c14	N73-12445	US-PATENT-CLASS-250-214AL	c74	N79-12890
US-PATENT-CLASS-250-83.3R	c14	N73-20477	US-PATENT-CLASS-250-214R	c14	N73-28490
US-PATENT-CLASS-250-83.3R	c14	N73-32317	US-PATENT-CLASS-250-214R	c74	N79-12890
US-PATENT-CLASS-250-83.3UV	c10	N72-17173	US-PATENT-CLASS-250-215	c14	N73-16483
US-PATENT-CLASS-250-83.3UV	c14	N72-25409	US-PATENT-CLASS-250-217	c14	N69-39896
US-PATENT-CLASS-250-83.3UV	c06	N73-16106	US-PATENT-CLASS-250-217	c14	N73-16483
US-PATENT-CLASS-250-83.6	c10	N70-41991	US-PATENT-CLASS-250-217	c36	N74-13205
US-PATENT-CLASS-250-83.6R	c14	N71-27090	US-PATENT-CLASS-250-217F	c14	N73-16484
US-PATENT-CLASS-250-83.6R	c14	N72-20381	US-PATENT-CLASS-250-217R	c14	N73-19419
US-PATENT-CLASS-250-83.6R	c25	N72-33696	US-PATENT-CLASS-250-217SS	c09	N73-14214
US-PATENT-CLASS-250-83CD	c91	N74-13130	US-PATENT-CLASS-250-217SS	c36	N74-15145
US-PATENT-CLASS-250-83R	c14	N73-12445	US-PATENT-CLASS-250-218	c14	N71-22996
US-PATENT-CLASS-250-83R	c14	N73-20477	US-PATENT-CLASS-250-218	c14	N71-28994
US-PATENT-CLASS-250-84	c14	N71-24809	US-PATENT-CLASS-250-218	c74	N78-33913
US-PATENT-CLASS-250-105	c14	N70-40240	US-PATENT-CLASS-250-219	c14	N71-28993
US-PATENT-CLASS-250-105	c14	N73-30389	US-PATENT-CLASS-250-219DF	c91	N74-13130
US-PATENT-CLASS-250-199	c16	N69-27491	US-PATENT-CLASS-250-219TH	c26	N73-26751
US-PATENT-CLASS-250-199	c07	N71-12389	US-PATENT-CLASS-250-225	c14	N71-24864
US-PATENT-CLASS-250-199	c16	N71-22895	US-PATENT-CLASS-250-225	c14	N72-27409
US-PATENT-CLASS-250-199	c16	N71-25914	US-PATENT-CLASS-250-226	c14	N72-25409
US-PATENT-CLASS-250-199	c16	N71-27183	US-PATENT-CLASS-250-226	c43	N79-17288
US-PATENT-CLASS-250-199	c16	N71-28963	US-PATENT-CLASS-250-227	c14	N71-22991
US-PATENT-CLASS-250-199	c16	N73-16536	US-PATENT-CLASS-250-227	c14	N71-23240
US-PATENT-CLASS-250-199	c07	N73-26119	US-PATENT-CLASS-250-227	c60	N77-14751
US-PATENT-CLASS-250-199	c74	N76-18913	US-PATENT-CLASS-250-227	c74	N78-33913
US-PATENT-CLASS-250-199	c74	N76-30053	US-PATENT-CLASS-250-229	c08	N73-30135
US-PATENT-CLASS-250-199	c74	N77-26942	US-PATENT-CLASS-250-231	c14	N73-20475
US-PATENT-CLASS-250-199	c32	N77-28346	US-PATENT-CLASS-250-231SE	c74	N74-21304
US-PATENT-CLASS-250-199	c60	N77-32731	US-PATENT-CLASS-250-232	c23	N71-21821
US-PATENT-CLASS-250-199	c74	N78-14889	US-PATENT-CLASS-250-233	c23	N71-16100
US-PATENT-CLASS-250-201	c14	N70-40238	US-PATENT-CLASS-250-234	c03	N73-20040
US-PATENT-CLASS-250-201	c35	N75-15014	US-PATENT-CLASS-250-235	c14	N72-11364
US-PATENT-CLASS-250-201	c74	N78-17866	US-PATENT-CLASS-250-236	c21	N73-30640
US-PATENT-CLASS-250-203	c14	N69-27432	US-PATENT-CLASS-250-237	c14	N69-28331
US-PATENT-CLASS-250-203	c14	N69-27485	US-PATENT-CLASS-250-237G	c74	N79-20856
US-PATENT-CLASS-250-203	c07	N69-39736	US-PATENT-CLASS-250-237R	c08	N73-30135
US-PATENT-CLASS-250-203	c14	N70-34158	US-PATENT-CLASS-250-238	c19	N74-15089
US-PATENT-CLASS-250-203	c21	N70-35089	US-PATENT-CLASS-250-238	c33	N75-31332
US-PATENT-CLASS-250-203	c14	N70-40239	US-PATENT-CLASS-250-238	c32	N77-28346
US-PATENT-CLASS-250-203	c21	N71-10678	US-PATENT-CLASS-250-239	c08	N73-30135
US-PATENT-CLASS-250-203	c21	N71-10771	US-PATENT-CLASS-250-239	c74	N78-33913
US-PATENT-CLASS-250-203	c21	N71-15642	US-PATENT-CLASS-250-251	c35	N76-15431
US-PATENT-CLASS-250-203	c14	N71-19568	US-PATENT-CLASS-250-272	c74	N78-15880
US-PATENT-CLASS-250-203	c14	N71-23269	US-PATENT-CLASS-250-277CH	c76	N78-24950
US-PATENT-CLASS-250-203	c14	N71-23797	US-PATENT-CLASS-250-280	c76	N78-24950
US-PATENT-CLASS-250-203	c14	N72-22444	US-PATENT-CLASS-250-281	c35	N74-34857
US-PATENT-CLASS-250-203	c14	N73-30393	US-PATENT-CLASS-250-281	c35	N76-16393
US-PATENT-CLASS-250-203	c35	N75-23910	US-PATENT-CLASS-250-281	c36	N77-26477
US-PATENT-CLASS-250-203	c14	N72-27409	US-PATENT-CLASS-250-282	c36	N77-26477
US-PATENT-CLASS-250-203R	c14	N73-25462	US-PATENT-CLASS-250-283	c36	N77-26477
US-PATENT-CLASS-250-203R	c14	N73-28490	US-PATENT-CLASS-250-287	c35	N76-15431
US-PATENT-CLASS-250-203R	c21	N73-30640	US-PATENT-CLASS-250-287	c35	N76-16393
US-PATENT-CLASS-250-203R	c19	N74-15089	US-PATENT-CLASS-250-288	c35	N76-16393
US-PATENT-CLASS-250-203R	c89	N74-30886	US-PATENT-CLASS-250-288	c35	N77-32456
US-PATENT-CLASS-250-203R	c35	N77-20401	US-PATENT-CLASS-250-289	c35	N77-14406
US-PATENT-CLASS-250-203R	c74	N77-22951	US-PATENT-CLASS-250-290	c35	N77-10492
US-PATENT-CLASS-250-203X	c16	N72-13437	US-PATENT-CLASS-250-291	c35	N77-10492
US-PATENT-CLASS-250-204	c36	N74-21091	US-PATENT-CLASS-250-295	c35	N74-34857
US-PATENT-CLASS-250-205	c14	N72-27411	US-PATENT-CLASS-250-298	c35	N77-14406
US-PATENT-CLASS-250-205	c09	N73-14214	US-PATENT-CLASS-250-304	c25	N74-26947
US-PATENT-CLASS-250-205	c36	N74-13205	US-PATENT-CLASS-250-310	c35	N78-10429
US-PATENT-CLASS-250-206	c10	N71-20782	US-PATENT-CLASS-250-320	c74	N78-15880
US-PATENT-CLASS-250-207	c14	N71-21040	US-PATENT-CLASS-250-322	c35	N78-15461
US-PATENT-CLASS-250-207	c14	N72-17328	US-PATENT-CLASS-250-332	c35	N75-19613
US-PATENT-CLASS-250-207	c14	N73-32317	US-PATENT-CLASS-250-332	c31	N78-25256
US-PATENT-CLASS-250-207	c33	N74-27682	US-PATENT-CLASS-250-335	c34	N76-18374
US-PATENT-CLASS-250-208	c14	N72-20379	US-PATENT-CLASS-250-336	c14	N73-28488
US-PATENT-CLASS-250-209	c07	N69-39980	US-PATENT-CLASS-250-336	c35	N76-15433
US-PATENT-CLASS-250-209	c20	N71-16340	US-PATENT-CLASS-250-336	c33	N76-27473
US-PATENT-CLASS-250-209	c10	N72-17173	US-PATENT-CLASS-250-336	c35	N78-13400
US-PATENT-CLASS-250-209	c14	N72-25409	US-PATENT-CLASS-250-338	c35	N74-18088
US-PATENT-CLASS-250-209	c14	N73-16483	US-PATENT-CLASS-250-338	c35	N77-10493
US-PATENT-CLASS-250-209	c14	N73-26432	US-PATENT-CLASS-250-338	c47	N77-10753
US-PATENT-CLASS-250-209	c14	N73-28490	US-PATENT-CLASS-250-339	c35	N77-10493
US-PATENT-CLASS-250-209	c21	N73-30640	US-PATENT-CLASS-250-339	c47	N77-10753
US-PATENT-CLASS-250-211J	c09	N72-17152	US-PATENT-CLASS-250-340	c35	N76-29551
US-PATENT-CLASS-250-211J	c09	N73-14214	US-PATENT-CLASS-250-343	c35	N74-11284
US-PATENT-CLASS-250-211J	c35	N74-15090	US-PATENT-CLASS-250-343	c25	N74-26947
US-PATENT-CLASS-250-211K	c74	N77-22951	US-PATENT-CLASS-250-343	c45	N75-27585
US-PATENT-CLASS-250-211R	c36	N75-19652	US-PATENT-CLASS-250-343	c74	N76-20958
US-PATENT-CLASS-250-211R	c35	N75-23910	US-PATENT-CLASS-250-343	c25	N76-22323
US-PATENT-CLASS-250-212	c03	N71-23354	US-PATENT-CLASS-250-343	c35	N77-14411
US-PATENT-CLASS-250-212	c03	N73-20040	US-PATENT-CLASS-250-343	c35	N78-13400
US-PATENT-CLASS-250-212	c09	N73-32109	US-PATENT-CLASS-250-344	c25	N76-22323

NUMBER INDEX

US-PATENT-CLASS-250-344	c74 N78-17867	US-PATENT-CLASS-251-61	c15 N71-10778
US-PATENT-CLASS-250-345	c45 N75-27585	US-PATENT-CLASS-251-61.1	c12 N71-18615
US-PATENT-CLASS-250-347	c35 N77-10493	US-PATENT-CLASS-251-86	c15 N72-31483
US-PATENT-CLASS-250-347	c47 N77-10753	US-PATENT-CLASS-251-118	c15 N71-18580
US-PATENT-CLASS-250-351	c35 N75-30502	US-PATENT-CLASS-251-120	c37 N74-21065
US-PATENT-CLASS-250-351	c35 N78-13400	US-PATENT-CLASS-251-121	c15 N71-18580
US-PATENT-CLASS-250-352	c31 N79-17029	US-PATENT-CLASS-251-122	c15 N73-13462
US-PATENT-CLASS-250-352	c34 N79-20336	US-PATENT-CLASS-251-122	c37 N74-21065
US-PATENT-CLASS-250-353	c35 N76-29551	US-PATENT-CLASS-251-127	c12 N71-18615
US-PATENT-CLASS-250-359	c37 N75-26372	US-PATENT-CLASS-251-129	c15 N72-20442
US-PATENT-CLASS-250-360	c35 N74-15091	US-PATENT-CLASS-251-148	c15 N71-23024
US-PATENT-CLASS-250-361	c35 N74-15091	US-PATENT-CLASS-251-149.6	c37 N76-14463
US-PATENT-CLASS-250-363R	c52 N77-14737	US-PATENT-CLASS-251-149.9	c37 N79-11402
US-PATENT-CLASS-250-363R	c74 N79-20857	US-PATENT-CLASS-251-172	c15 N71-21234
US-PATENT-CLASS-250-369	c35 N74-15091	US-PATENT-CLASS-251-173	c15 N70-33376
US-PATENT-CLASS-250-370	c35 N74-18088	US-PATENT-CLASS-251-210	c37 N74-21065
US-PATENT-CLASS-250-370	c33 N75-31332	US-PATENT-CLASS-251-331	c15 N72-31483
US-PATENT-CLASS-250-371	c35 N70-18088	US-PATENT-CLASS-251-333	c15 N70-34859
US-PATENT-CLASS-250-372	c19 N70-29410	US-PATENT-CLASS-251-333	c12 N71-18615
US-PATENT-CLASS-250-372	c24 N76-24363	US-PATENT-CLASS-251-333	c15 N72-20442
US-PATENT-CLASS-250-372	c33 N76-27473	US-PATENT-CLASS-251-342	c37 N75-25185
US-PATENT-CLASS-250-373	c25 N74-26947	US-PATENT-CLASS-251-358	c12 N71-18615
US-PATENT-CLASS-250-373	c35 N75-30502	US-PATENT-CLASS-251-360	c15 N71-17688
US-PATENT-CLASS-250-373	c45 N76-17656	US-PATENT-CLASS-252-8.1	c15 N72-25451
US-PATENT-CLASS-250-374	c35 N70-26949	US-PATENT-CLASS-252-8.1	c18 N73-26572
US-PATENT-CLASS-250-385	c35 N74-26949	US-PATENT-CLASS-252-8.1	c27 N74-27037
US-PATENT-CLASS-250-385	c35 N75-27331	US-PATENT-CLASS-252-12	c24 N78-14096
US-PATENT-CLASS-250-385	c35 N76-15433	US-PATENT-CLASS-252-12	c15 N71-23810
US-PATENT-CLASS-250-385	c35 N76-16393	US-PATENT-CLASS-252-12.2	c24 N76-22309
US-PATENT-CLASS-250-394	c14 N73-30392	US-PATENT-CLASS-252-26	c24 N79-17916
US-PATENT-CLASS-250-394	c19 N74-29410	US-PATENT-CLASS-252-26	c15 N71-21403
US-PATENT-CLASS-250-396	c35 N77-14408	US-PATENT-CLASS-252-58	c15 N71-24006
US-PATENT-CLASS-250-398	c35 N78-10429	US-PATENT-CLASS-252-62	c18 N70-39897
US-PATENT-CLASS-250-400	c25 N76-29379	US-PATENT-CLASS-252-62.3	c27 N74-27037
US-PATENT-CLASS-250-400	c25 N78-27226	US-PATENT-CLASS-252-62.3	c26 N71-23292
US-PATENT-CLASS-250-416TV	c35 N78-15461	US-PATENT-CLASS-252-62.3GA	c76 N76-25049
US-PATENT-CLASS-250-423	c35 N76-15431	US-PATENT-CLASS-252-70	c25 N75-26043
US-PATENT-CLASS-250-423	c35 N76-16393	US-PATENT-CLASS-252-300	c23 N75-14834
US-PATENT-CLASS-250-423P	c36 N77-26477	US-PATENT-CLASS-252-300	c14 N72-22443
US-PATENT-CLASS-250-423P	c25 N78-25148	US-PATENT-CLASS-252-301.1R	c24 N76-24363
US-PATENT-CLASS-250-429	c25 N76-29379	US-PATENT-CLASS-252-301.2	c35 N79-10389
US-PATENT-CLASS-250-429	c25 N78-27226	US-PATENT-CLASS-252-301.4	c18 N71-27170
US-PATENT-CLASS-250-432	c45 N75-27585	US-PATENT-CLASS-252-301.16	c06 N73-30097
US-PATENT-CLASS-250-432R	c25 N76-22323	US-PATENT-CLASS-252-305	c35 N79-10389
US-PATENT-CLASS-250-444	c52 N77-14737	US-PATENT-CLASS-252-359A	c06 N73-30097
US-PATENT-CLASS-250-460	c37 N75-26372	US-PATENT-CLASS-252-373	c37 N77-13418
US-PATENT-CLASS-250-475	c35 N79-10389	US-PATENT-CLASS-252-373	c44 N76-29704
US-PATENT-CLASS-250-483	c74 N79-20857	US-PATENT-CLASS-252-408	c44 N77-10636
US-PATENT-CLASS-250-489	c35 N76-15433	US-PATENT-CLASS-252-431N	c14 N73-14428
US-PATENT-CLASS-250-492	c35 N74-15091	US-PATENT-CLASS-252-431R	c06 N73-32029
US-PATENT-CLASS-250-492	c37 N75-26372	US-PATENT-CLASS-252-472	c06 N73-32029
US-PATENT-CLASS-250-492R	c25 N78-27226	US-PATENT-CLASS-252-514	c25 N78-10225
US-PATENT-CLASS-250-492R	c25 N76-29379	US-PATENT-CLASS-252-518	c05 N72-25120
US-PATENT-CLASS-250-493	c28 N78-24365	US-PATENT-CLASS-252-549	c24 N79-14156
US-PATENT-CLASS-250-495	c73 N75-30876	US-PATENT-CLASS-253-39.1	c23 N75-14834
US-PATENT-CLASS-250-495	c74 N75-12732	US-PATENT-CLASS-253-39.15	c33 N71-29152
US-PATENT-CLASS-250-496	c73 N75-30876	US-PATENT-CLASS-253-39.15	c15 N70-33226
US-PATENT-CLASS-250-498	c52 N77-14737	US-PATENT-CLASS-253-66	c15 N70-33264
US-PATENT-CLASS-250-499	c73 N74-26767	US-PATENT-CLASS-253-66	c28 N70-33372
US-PATENT-CLASS-250-499	c72 N76-15860	US-PATENT-CLASS-253-77	c15 N70-36412
US-PATENT-CLASS-250-499	c37 N78-13436	US-PATENT-CLASS-253-77	c28 N70-39895
US-PATENT-CLASS-250-500	c72 N76-15860	US-PATENT-CLASS-253-317	c28 N71-28928
US-PATENT-CLASS-250-505	c74 N74-27866	US-PATENT-CLASS-254-29A	c28 N71-29154
US-PATENT-CLASS-250-505	c35 N75-19616	US-PATENT-CLASS-254-93R	c44 N77-22606
US-PATENT-CLASS-250-508	c35 N75-19616	US-PATENT-CLASS-254-124	c15 N73-30457
US-PATENT-CLASS-250-510	c35 N75-19616	US-PATENT-CLASS-254-150	c35 N74-13129
US-PATENT-CLASS-250-511	c74 N74-27866	US-PATENT-CLASS-254-156	c20 N76-22296
US-PATENT-CLASS-250-518	c14 N73-30392	US-PATENT-CLASS-254-158	c20 N76-22296
US-PATENT-CLASS-250-527	c37 N76-18458	US-PATENT-CLASS-254-173	c15 N71-24599
US-PATENT-CLASS-250-527	c25 N77-32255	US-PATENT-CLASS-254-186	c15 N73-25512
US-PATENT-CLASS-250-527	c44 N77-32580	US-PATENT-CLASS-254-190	c54 N77-21844
US-PATENT-CLASS-250-527	c44 N79-11470	US-PATENT-CLASS-256-1	c15 N71-24599
US-PATENT-CLASS-250-528	c25 N78-25148	US-PATENT-CLASS-256-13.1	c15 N72-25453
US-PATENT-CLASS-250-531	c25 N78-25148	US-PATENT-CLASS-259-DIG. 18	c37 N79-10420
US-PATENT-CLASS-250-531	c33 N79-15245	US-PATENT-CLASS-259-4	c37 N79-10420
US-PATENT-CLASS-250-540	c33 N79-15245	US-PATENT-CLASS-259-4AC	c35 N74-15093
US-PATENT-CLASS-250-541	c38 N78-17396	US-PATENT-CLASS-259-4R	c15 N73-19458
US-PATENT-CLASS-250-563	c74 N75-25706	US-PATENT-CLASS-259-60	c37 N76-19436
US-PATENT-CLASS-250-566	c36 N78-14380	US-PATENT-CLASS-259-71	c34 N77-24423
US-PATENT-CLASS-250-571	c38 N78-17395	US-PATENT-CLASS-259-72	c35 N74-15093
US-PATENT-CLASS-250-572	c38 N78-17396	US-PATENT-CLASS-259-98	c15 N71-21177
US-PATENT-CLASS-250-572	c74 N76-20958	US-PATENT-CLASS-260-DIG. 15	c37 N74-18123
US-PATENT-CLASS-250-573	c45 N76-21742	US-PATENT-CLASS-260-DIG. 24	c35 N74-15126
US-PATENT-CLASS-250-574	c36 N77-25501	US-PATENT-CLASS-260-DIG. 24	c27 N78-14164
US-PATENT-CLASS-250-574	c35 N74-27860	US-PATENT-CLASS-260-2	c27 N74-27037
US-PATENT-CLASS-250-576	c36 N75-19652	US-PATENT-CLASS-260-2	c27 N76-24405
US-PATENT-CLASS-250-578	c15 N70-35407	US-PATENT-CLASS-260-2	c06 N71-11243
US-PATENT-CLASS-251-11	c15 N71-19485		c06 N71-20717
US-PATENT-CLASS-251-31			

NUMBER INDEX

US-PATENT-CLASS-260-2	c06	N71-20905	US-PATENT-CLASS-260-75NH	c27	N78-17213
US-PATENT-CLASS-260-2	c06	N71-27363	US-PATENT-CLASS-260-75NH	c27	N78-17213
US-PATENT-CLASS-260-2	c06	N73-30102	US-PATENT-CLASS-260-75NT	c27	N78-17213
US-PATENT-CLASS-260-2	c27	N79-21190	US-PATENT-CLASS-260-77.5	c06	N73-30099
US-PATENT-CLASS-260-2.1E	c18	N72-22567	US-PATENT-CLASS-260-77.5	c06	N73-30100
US-PATENT-CLASS-260-2.5	c06	N71-11242	US-PATENT-CLASS-260-77.5	c06	N73-30103
US-PATENT-CLASS-260-2.5	c06	N71-24739	US-PATENT-CLASS-260-77.5AH	c27	N78-17213
US-PATENT-CLASS-260-2.5	c06	N71-25929	US-PATENT-CLASS-260-77.5AH	c27	N78-17213
US-PATENT-CLASS-260-2.5	c18	N71-26155	US-PATENT-CLASS-260-77.5AP	c06	N72-27144
US-PATENT-CLASS-260-2.5	c06	N72-25150	US-PATENT-CLASS-260-77.5AP	c06	N73-33076
US-PATENT-CLASS-260-2.5A	c27	N77-31308	US-PATENT-CLASS-260-77.5AP	c27	N77-31308
US-PATENT-CLASS-260-2.5AK	c27	N76-15310	US-PATENT-CLASS-260-77.5AP	c27	N78-17213
US-PATENT-CLASS-260-2.5AK	c24	N78-24290	US-PATENT-CLASS-260-77.5AT	c27	N78-17213
US-PATENT-CLASS-260-2.5AH	c27	N78-12812	US-PATENT-CLASS-260-77.55P	c27	N78-17213
US-PATENT-CLASS-260-2.5AH	c27	N77-31308	US-PATENT-CLASS-260-78	c06	N71-11235
US-PATENT-CLASS-260-2.5AP	c24	N78-24290	US-PATENT-CLASS-260-78	c06	N71-11238
US-PATENT-CLASS-260-2.5AY	c27	N77-31308	US-PATENT-CLASS-260-78.41	c27	N78-31232
US-PATENT-CLASS-260-2.5B	c24	N78-24290	US-PATENT-CLASS-260-78TF	c06	N73-27980
US-PATENT-CLASS-260-2.5BE	c24	N78-24290	US-PATENT-CLASS-260-78TF	c27	N74-23125
US-PATENT-CLASS-260-2.5EP	c24	N78-24290	US-PATENT-CLASS-260-78TF	c23	N75-30256
US-PATENT-CLASS-260-2.5F	c18	N73-13562	US-PATENT-CLASS-260-78TF	c23	N76-15268
US-PATENT-CLASS-260-2.5FP	c06	N72-25147	US-PATENT-CLASS-260-78TF	c27	N78-32261
US-PATENT-CLASS-260-2.5FP	c27	N74-27037	US-PATENT-CLASS-260-78UA	c06	N73-27980
US-PATENT-CLASS-260-2.5FP	c24	N78-24290	US-PATENT-CLASS-260-85.5	c06	N71-23500
US-PATENT-CLASS-260-2.5L	c27	N74-12814	US-PATENT-CLASS-260-92.1	c06	N72-25150
US-PATENT-CLASS-260-2.5N	c24	N78-15180	US-PATENT-CLASS-260-92.1	c06	N72-25152
US-PATENT-CLASS-260-2.5N	c27	N78-31232	US-PATENT-CLASS-260-92.1	c27	N76-16228
US-PATENT-CLASS-260-2.5R	c27	N74-27037	US-PATENT-CLASS-260-92.1	c27	N76-24405
US-PATENT-CLASS-260-2.5R	c24	N78-15180	US-PATENT-CLASS-260-93.5A	c06	N73-32029
US-PATENT-CLASS-260-2P	c27	N78-32256	US-PATENT-CLASS-260-93.5S	c06	N73-32029
US-PATENT-CLASS-260-2R	c37	N74-18126	US-PATENT-CLASS-260-94.2H	c06	N73-32029
US-PATENT-CLASS-260-2R	c27	N74-27037	US-PATENT-CLASS-260-94.2R	c06	N73-32029
US-PATENT-CLASS-260-2R	c27	N78-15276	US-PATENT-CLASS-260-94.7R	c06	N73-32029
US-PATENT-CLASS-260-18S	c06	N72-25151	US-PATENT-CLASS-260-94.8	c27	N73-22710
US-PATENT-CLASS-260-28.5	c27	N78-33228	US-PATENT-CLASS-260-211.5	c06	N72-25149
US-PATENT-CLASS-260-29.1R	c24	N78-24290	US-PATENT-CLASS-260-240G	c27	N76-32315
US-PATENT-CLASS-260-29.6	c26	N75-27125	US-PATENT-CLASS-260-346.3	c23	N75-30256
US-PATENT-CLASS-260-29.6S	c27	N74-17283	US-PATENT-CLASS-260-346.3	c23	N76-15268
US-PATENT-CLASS-260-30.2	c06	N73-27980	US-PATENT-CLASS-260-348SC	c06	N72-25148
US-PATENT-CLASS-260-30.4H	c27	N78-17205	US-PATENT-CLASS-260-396N	c27	N74-27037
US-PATENT-CLASS-260-30.8DS	c06	N73-27980	US-PATENT-CLASS-260-404.5	c18	N71-15688
US-PATENT-CLASS-260-32.2R	c27	N78-17205	US-PATENT-CLASS-260-429	c06	N71-28808
US-PATENT-CLASS-260-32.6H	c06	N73-27980	US-PATENT-CLASS-260-448.2	c06	N71-23230
US-PATENT-CLASS-260-32.6H	c23	N76-15268	US-PATENT-CLASS-260-448.2D	c06	N72-25151
US-PATENT-CLASS-260-32.6MT	c27	N78-17205	US-PATENT-CLASS-260-448.2D	c06	N73-32030
US-PATENT-CLASS-260-32.8H	c23	N76-15268	US-PATENT-CLASS-260-448.2H	c37	N74-21058
US-PATENT-CLASS-260-33.4R	c06	N73-27980	US-PATENT-CLASS-260-485P	c06	N73-30098
US-PATENT-CLASS-260-33.4R	c27	N78-17205	US-PATENT-CLASS-260-520	c23	N75-30256
US-PATENT-CLASS-260-33.6EP	c24	N78-27180	US-PATENT-CLASS-260-535H	c06	N72-27144
US-PATENT-CLASS-260-33.6PQ	c24	N78-27180	US-PATENT-CLASS-260-544P	c06	N72-20121
US-PATENT-CLASS-260-33.6R	c06	N73-27980	US-PATENT-CLASS-260-551P	c27	N78-32256
US-PATENT-CLASS-260-33.8EP	c24	N78-27180	US-PATENT-CLASS-260-566B	c27	N76-32315
US-PATENT-CLASS-260-33.8P	c27	N76-24405	US-PATENT-CLASS-260-567.6H	c06	N73-32029
US-PATENT-CLASS-260-33.8UA	c24	N78-27180	US-PATENT-CLASS-260-571	c23	N76-15268
US-PATENT-CLASS-260-37	c18	N71-25881	US-PATENT-CLASS-260-606-5P	c27	N78-32256
US-PATENT-CLASS-260-37EP	c24	N78-24290	US-PATENT-CLASS-260-615	c06	N71-27254
US-PATENT-CLASS-260-37EP	c24	N78-27180	US-PATENT-CLASS-260-615	c06	N73-30101
US-PATENT-CLASS-260-42.17	c27	N78-17215	US-PATENT-CLASS-260-877	c06	N72-22107
US-PATENT-CLASS-260-42.43	c24	N78-27180	US-PATENT-CLASS-260-879	c27	N76-16228
US-PATENT-CLASS-260-45.7	c27	N76-24405	US-PATENT-CLASS-260-900	c27	N76-16228
US-PATENT-CLASS-260-45.7R	c24	N78-27180	US-PATENT-CLASS-260-959	c27	N78-32256
US-PATENT-CLASS-260-45.9R	c24	N78-27180	US-PATENT-CLASS-261-DIG.75	c34	N77-24423
US-PATENT-CLASS-260-45.75H	c24	N78-27180	US-PATENT-CLASS-261-123	c34	N77-24423
US-PATENT-CLASS-260-45.85H	c24	N78-27180	US-PATENT-CLASS-261-145	c28	N72-22772
US-PATENT-CLASS-260-46.5	c06	N71-11237	US-PATENT-CLASS-263-48	c15	N69-27483
US-PATENT-CLASS-260-46.5	c06	N71-11240	US-PATENT-CLASS-264-DIG.36	c18	N73-14584
US-PATENT-CLASS-260-46.5E	c06	N72-25151	US-PATENT-CLASS-264-DIG.44	c15	N72-16329
US-PATENT-CLASS-260-46.5G	c06	N72-25151	US-PATENT-CLASS-264-3	c28	N71-26779
US-PATENT-CLASS-260-46.5P	c06	N72-25151	US-PATENT-CLASS-264-3R	c28	N77-10213
US-PATENT-CLASS-260-46.5E	c27	N74-21156	US-PATENT-CLASS-264-3R	c20	N77-17143
US-PATENT-CLASS-260-46.5R	c06	N73-26100	US-PATENT-CLASS-264-22	c15	N72-20446
US-PATENT-CLASS-260-47	c06	N71-28620	US-PATENT-CLASS-264-22	c14	N72-22439
US-PATENT-CLASS-260-47	c06	N71-28807	US-PATENT-CLASS-264-22	c25	N75-12087
US-PATENT-CLASS-260-47CP	c06	N73-27980	US-PATENT-CLASS-264-23	c71	N78-10837
US-PATENT-CLASS-260-47CP	c23	N76-15268	US-PATENT-CLASS-264-27	c26	N71-17818
US-PATENT-CLASS-260-47CP	c27	N78-31232	US-PATENT-CLASS-264-28	c15	N73-12489
US-PATENT-CLASS-260-47CP	c27	N78-32261	US-PATENT-CLASS-264-36	c15	N73-12489
US-PATENT-CLASS-260-47UP	c06	N73-32029	US-PATENT-CLASS-264-36	c32	N74-27612
US-PATENT-CLASS-260-49	c27	N78-32261	US-PATENT-CLASS-264-40	c15	N73-12489
US-PATENT-CLASS-260-63H	c27	N78-31232	US-PATENT-CLASS-264-60	c27	N76-22376
US-PATENT-CLASS-260-63H	c27	N78-32261	US-PATENT-CLASS-264-60	c27	N79-14213
US-PATENT-CLASS-260-63H	c27	N78-32261	US-PATENT-CLASS-264-63	c27	N76-22376
US-PATENT-CLASS-260-65	c06	N73-27980	US-PATENT-CLASS-264-65	c18	N73-14584
US-PATENT-CLASS-260-65	c27	N78-32261	US-PATENT-CLASS-264-66	c27	N76-22376
US-PATENT-CLASS-260-67	c27	N78-17214	US-PATENT-CLASS-264-90	c24	N78-17150
US-PATENT-CLASS-260-67	c27	N79-21191	US-PATENT-CLASS-264-92	c15	N71-17803
US-PATENT-CLASS-260-72.5	c06	N71-11236	US-PATENT-CLASS-264-92	c15	N72-24522
US-PATENT-CLASS-260-72.5	c06	N71-11239	US-PATENT-CLASS-264-102	c15	N71-14672
US-PATENT-CLASS-260-72.5	c06	N71-24740	US-PATENT-CLASS-264-102	c15	N73-12489

NUMBER INDEX

US-PATENT-CLASS-264-102	c31	N74-14133	US-PATENT-CLASS-285-38	c15	N71-24903
US-PATENT-CLASS-264-102	c31	N74-18124	US-PATENT-CLASS-285-45	c15	N71-28937
US-PATENT-CLASS-264-102	c37	N76-24575	US-PATENT-CLASS-285-114	c37	N75-19686
US-PATENT-CLASS-264-104	c05	N72-25120	US-PATENT-CLASS-285-192	c20	N78-24275
US-PATENT-CLASS-264-111	c17	N71-29137	US-PATENT-CLASS-285-226	c37	N75-19686
US-PATENT-CLASS-264-129	c37	N76-31524	US-PATENT-CLASS-285-226	c37	N76-14460
US-PATENT-CLASS-264-130	c27	N78-32262	US-PATENT-CLASS-285-235	c54	N78-31735
US-PATENT-CLASS-264-135	c37	N74-18126	US-PATENT-CLASS-285-265	c37	N76-14460
US-PATENT-CLASS-264-136	c37	N74-18126	US-PATENT-CLASS-285-314	c15	N71-24903
US-PATENT-CLASS-264-157	c24	N78-17150	US-PATENT-CLASS-285-316	c15	N72-25450
US-PATENT-CLASS-264-161	c37	N76-31524	US-PATENT-CLASS-285-316	c33	N73-26958
US-PATENT-CLASS-264-184	c27	N78-32262	US-PATENT-CLASS-285-317	c15	N71-24903
US-PATENT-CLASS-264-211	c27	N78-32262	US-PATENT-CLASS-285-326	c37	N79-11402
US-PATENT-CLASS-264-217	c25	N75-12087	US-PATENT-CLASS-285-331	c15	N70-41629
US-PATENT-CLASS-264-219	c37	N76-31524	US-PATENT-CLASS-285-345	c15	N72-20445
US-PATENT-CLASS-264-221	c15	N72-16329	US-PATENT-CLASS-285-359	c37	N79-11402
US-PATENT-CLASS-264-225	c15	N72-16329	US-PATENT-CLASS-285-406	c15	N71-24903
US-PATENT-CLASS-264-227	c15	N72-16329	US-PATENT-CLASS-285-410	c05	N72-11085
US-PATENT-CLASS-264-236	c27	N78-32262	US-PATENT-CLASS-287-54A	c11	N72-25287
US-PATENT-CLASS-264-257	c37	N74-18126	US-PATENT-CLASS-287-85R	c15	N73-12488
US-PATENT-CLASS-264-267	c37	N76-24575	US-PATENT-CLASS-287-92	c31	N73-32749
US-PATENT-CLASS-264-294	c31	N74-13177	US-PATENT-CLASS-287-119	c15	N70-41829
US-PATENT-CLASS-264-304	c37	N76-31524	US-PATENT-CLASS-287-189.36	c15	N71-10799
US-PATENT-CLASS-264-305	c37	N76-31524	US-PATENT-CLASS-287-189.365	c15	N71-26312
US-PATENT-CLASS-264-308	c37	N76-31524	US-PATENT-CLASS-290-40	c03	N71-11057
US-PATENT-CLASS-264-310	c37	N76-31524	US-PATENT-CLASS-290-52	c37	N77-32500
US-PATENT-CLASS-264-318	c37	N76-31524	US-PATENT-CLASS-290-52	c37	N77-32501
US-PATENT-CLASS-264-331	c27	N76-16230	US-PATENT-CLASS-292-DIG. 14	c37	N75-19685
US-PATENT-CLASS-264-334	c37	N76-31524	US-PATENT-CLASS-292-108	c37	N75-19685
US-PATENT-CLASS-264-345	c71	N78-10837	US-PATENT-CLASS-292-110	c37	N77-32499
US-PATENT-CLASS-266-19	c15	N70-33382	US-PATENT-CLASS-292-122	c37	N75-19685
US-PATENT-CLASS-266-24	c17	N72-28535	US-PATENT-CLASS-294-1R	c35	N76-16392
US-PATENT-CLASS-267-1	c15	N69-27504	US-PATENT-CLASS-294-15	c15	N71-29133
US-PATENT-CLASS-267-1	c15	N70-38225	US-PATENT-CLASS-294-19R	c35	N76-16392
US-PATENT-CLASS-267-64	c15	N71-21530	US-PATENT-CLASS-294-83	c15	N71-24897
US-PATENT-CLASS-267-166	c34	N74-18552	US-PATENT-CLASS-294-86.33	c37	N75-33395
US-PATENT-CLASS-269-21	c37	N76-21554	US-PATENT-CLASS-294-116	c37	N75-33395
US-PATENT-CLASS-269-21	c37	N78-17383	US-PATENT-CLASS-297-68	c05	N71-12343
US-PATENT-CLASS-269-21	c37	N78-27423	US-PATENT-CLASS-297-68	c05	N72-11085
US-PATENT-CLASS-269-48.1	c39	N74-13131	US-PATENT-CLASS-297-216	c05	N70-35152
US-PATENT-CLASS-269-153	c44	N79-19447	US-PATENT-CLASS-297-232	c05	N72-11085
US-PATENT-CLASS-269-266	c37	N78-27423	US-PATENT-CLASS-297-385	c05	N71-12341
US-PATENT-CLASS-272-DIG. 1	c05	N73-32014	US-PATENT-CLASS-297-385	c05	N75-25915
US-PATENT-CLASS-272-DIG. 4	c05	N73-32014	US-PATENT-CLASS-297-386	c15	N73-30460
US-PATENT-CLASS-272-DIG. 5	c05	N73-32014	US-PATENT-CLASS-297-388	c05	N75-25915
US-PATENT-CLASS-272-1R	c09	N75-15662	US-PATENT-CLASS-297-389	c05	N75-25915
US-PATENT-CLASS-272-57A	c09	N75-15662	US-PATENT-CLASS-299-67	c46	N74-23068
US-PATENT-CLASS-272-70	c05	N71-28619	US-PATENT-CLASS-299-86	c46	N74-23069
US-PATENT-CLASS-272-73	c14	N73-27377	US-PATENT-CLASS-301-5P	c37	N74-18125
US-PATENT-CLASS-272-73	c05	N73-27941	US-PATENT-CLASS-301-82	c33	N79-10339
US-PATENT-CLASS-272-73	c37	N74-18127	US-PATENT-CLASS-302-66	c25	N79-11152
US-PATENT-CLASS-272-79C	c05	N73-32014	US-PATENT-CLASS-303-92	c44	N79-14527
US-PATENT-CLASS-272-80	c37	N74-18127	US-PATENT-CLASS-305-35EB	c11	N73-26238
US-PATENT-CLASS-273-1E	c05	N73-13114	US-PATENT-CLASS-305-39	c11	N73-26238
US-PATENT-CLASS-274-4R	c09	N72-11224	US-PATENT-CLASS-307-18	c03	N73-31988
US-PATENT-CLASS-277-4	c37	N76-22541	US-PATENT-CLASS-307-18	c33	N74-34638
US-PATENT-CLASS-277-13	c15	N71-26294	US-PATENT-CLASS-307-28	c03	N73-31988
US-PATENT-CLASS-277-25	c15	N69-21362	US-PATENT-CLASS-307-29	c03	N73-31988
US-PATENT-CLASS-277-25	c15	N71-19570	US-PATENT-CLASS-307-35	c33	N74-34638
US-PATENT-CLASS-277-25	c15	N72-29488	US-PATENT-CLASS-307-38	c03	N73-31988
US-PATENT-CLASS-277-25	c37	N74-10474	US-PATENT-CLASS-307-53	c10	N71-26626
US-PATENT-CLASS-277-25	c07	N78-25090	US-PATENT-CLASS-307-53	c33	N78-17296
US-PATENT-CLASS-277-27	c15	N72-29488	US-PATENT-CLASS-307-64	c33	N77-30365
US-PATENT-CLASS-277-27	c37	N74-10474	US-PATENT-CLASS-307-69	c33	N78-17296
US-PATENT-CLASS-277-27	c37	N74-15125	US-PATENT-CLASS-307-81	c09	N72-17157
US-PATENT-CLASS-277-27	c37	N75-21631	US-PATENT-CLASS-307-83	c09	N72-25262
US-PATENT-CLASS-277-40	c37	N75-21631	US-PATENT-CLASS-307-88	c08	N70-34743
US-PATENT-CLASS-277-41	c37	N76-22541	US-PATENT-CLASS-307-88	c09	N70-38604
US-PATENT-CLASS-277-74	c15	N72-29488	US-PATENT-CLASS-307-88	c09	N71-24803
US-PATENT-CLASS-277-74	c37	N76-22541	US-PATENT-CLASS-307-88	c09	N71-26000
US-PATENT-CLASS-277-91	c37	N74-15125	US-PATENT-CLASS-307-88.3	c09	N72-25258
US-PATENT-CLASS-277-93R	c37	N76-22541	US-PATENT-CLASS-307-88.5	c09	N70-34819
US-PATENT-CLASS-277-96	c37	N74-10474	US-PATENT-CLASS-307-88.5	c09	N70-40272
US-PATENT-CLASS-277-134	c37	N75-21631	US-PATENT-CLASS-307-88.5	c09	N70-41675
US-PATENT-CLASS-277-134	c07	N78-25090	US-PATENT-CLASS-307-88.5	c10	N70-42032
US-PATENT-CLASS-279-1E	c37	N75-33395	US-PATENT-CLASS-307-88.5	c09	N71-10673
US-PATENT-CLASS-279-3	c37	N78-17383	US-PATENT-CLASS-307-88.5	c10	N71-15910
US-PATENT-CLASS-279-89	c37	N75-33395	US-PATENT-CLASS-307-88.5	c10	N71-16042
US-PATENT-CLASS-279-107	c37	N75-33395	US-PATENT-CLASS-307-88.5	c10	N71-28739
US-PATENT-CLASS-280-150SB	c05	N75-25915	US-PATENT-CLASS-307-88MP	c09	N72-22197
US-PATENT-CLASS-280-432	c37	N77-14477	US-PATENT-CLASS-307-92	c09	N72-27227
US-PATENT-CLASS-285-DIG. 21	c15	N72-25450	US-PATENT-CLASS-307-103	c09	N72-25262
US-PATENT-CLASS-285-DIG. 21	c33	N73-26958	US-PATENT-CLASS-307-104	c09	N71-24892
US-PATENT-CLASS-285-3	c15	N69-27490	US-PATENT-CLASS-307-106	c09	N69-21468
US-PATENT-CLASS-285-3	c15	N72-25450	US-PATENT-CLASS-307-118	c09	N72-27227
US-PATENT-CLASS-285-18	c15	N72-20445	US-PATENT-CLASS-307-126	c14	N71-27407
US-PATENT-CLASS-285-24	c15	N71-10782	US-PATENT-CLASS-307-127	c33	N74-14956
US-PATENT-CLASS-285-27	c15	N70-41808	US-PATENT-CLASS-307-136	c09	N69-27500
US-PATENT-CLASS-285-33	c15	N72-25450	US-PATENT-CLASS-307-141.8	c03	N72-25020

NUMBER INDEX

US-PATENT-CLASS-307-149	c09	N71-13486	US-PATENT-CLASS-307-260	c33	N75-19515
US-PATENT-CLASS-307-149	c54	N75-12616	US-PATENT-CLASS-307-261	c09	N71-33109
US-PATENT-CLASS-307-151	c32	N78-24391	US-PATENT-CLASS-307-261	c09	N72-25251
US-PATENT-CLASS-307-157	c16	N73-32391	US-PATENT-CLASS-307-262	c10	N72-16172
US-PATENT-CLASS-307-204	c35	N75-30504	US-PATENT-CLASS-307-262	c09	N72-22197
US-PATENT-CLASS-307-205	c33	N75-14957	US-PATENT-CLASS-307-262	c09	N72-33204
US-PATENT-CLASS-307-206	c10	N72-22236	US-PATENT-CLASS-307-263	c09	N71-23270
US-PATENT-CLASS-307-207	c08	N71-29034	US-PATENT-CLASS-307-263	c09	N71-28926
US-PATENT-CLASS-307-207	c09	N73-13209	US-PATENT-CLASS-307-265	c09	N69-39987
US-PATENT-CLASS-307-208	c33	N75-14957	US-PATENT-CLASS-307-265	c10	N71-23029
US-PATENT-CLASS-307-211	c35	N75-30504	US-PATENT-CLASS-307-265	c09	N71-28468
US-PATENT-CLASS-307-215	c10	N71-28860	US-PATENT-CLASS-307-265	c10	N71-28860
US-PATENT-CLASS-307-215	c09	N71-29139	US-PATENT-CLASS-307-265	c08	N71-29138
US-PATENT-CLASS-307-215	c10	N72-22236	US-PATENT-CLASS-307-265	c09	N71-29139
US-PATENT-CLASS-307-215	c09	N73-13209	US-PATENT-CLASS-307-265	c33	N78-18308
US-PATENT-CLASS-307-215	c33	N74-22814	US-PATENT-CLASS-307-267	c09	N71-20447
US-PATENT-CLASS-307-216	c08	N71-18751	US-PATENT-CLASS-307-267	c33	N74-32711
US-PATENT-CLASS-307-219	c35	N75-30504	US-PATENT-CLASS-307-267	c33	N75-18479
US-PATENT-CLASS-307-220	c10	N73-26229	US-PATENT-CLASS-307-268	c09	N69-24317
US-PATENT-CLASS-307-221R	c10	N73-20254	US-PATENT-CLASS-307-270	c33	N78-17294
US-PATENT-CLASS-307-221R	c33	N76-18373	US-PATENT-CLASS-307-271	c10	N73-32145
US-PATENT-CLASS-307-222	c09	N69-27463	US-PATENT-CLASS-307-273	c10	N71-18723
US-PATENT-CLASS-307-222	c08	N71-29034	US-PATENT-CLASS-307-273	c09	N71-27016
US-PATENT-CLASS-307-223	c09	N72-17157	US-PATENT-CLASS-307-273	c09	N71-28468
US-PATENT-CLASS-307-223B	c09	N72-22201	US-PATENT-CLASS-307-273	c10	N71-28860
US-PATENT-CLASS-307-225R	c33	N74-10223	US-PATENT-CLASS-307-273	c09	N71-29139
US-PATENT-CLASS-307-225R	c33	N75-31330	US-PATENT-CLASS-307-273	c10	N72-20221
US-PATENT-CLASS-307-225R	c33	N77-28375	US-PATENT-CLASS-307-280	c33	N77-21314
US-PATENT-CLASS-307-227	c09	N72-17157	US-PATENT-CLASS-307-284	c09	N72-22201
US-PATENT-CLASS-307-227	c33	N75-19522	US-PATENT-CLASS-307-288	c09	N71-23015
US-PATENT-CLASS-307-229	c09	N71-12520	US-PATENT-CLASS-307-288	c09	N71-28468
US-PATENT-CLASS-307-229	c09	N72-23173	US-PATENT-CLASS-307-288	c10	N72-20221
US-PATENT-CLASS-307-229	c33	N75-18479	US-PATENT-CLASS-307-288	c09	N72-22202
US-PATENT-CLASS-307-229	c33	N77-17354	US-PATENT-CLASS-307-289	c10	N71-19547
US-PATENT-CLASS-307-229	c33	N78-32339	US-PATENT-CLASS-307-290	c33	N74-22814
US-PATENT-CLASS-307-230	c10	N72-16172	US-PATENT-CLASS-307-294	c09	N71-29139
US-PATENT-CLASS-307-230	c09	N72-21245	US-PATENT-CLASS-307-295	c10	N72-17171
US-PATENT-CLASS-307-230	c09	N73-20232	US-PATENT-CLASS-307-295	c10	N72-20223
US-PATENT-CLASS-307-230	c33	N74-32712	US-PATENT-CLASS-307-295	c09	N72-12145
US-PATENT-CLASS-307-230	c33	N77-17354	US-PATENT-CLASS-307-295	c09	N72-33204
US-PATENT-CLASS-307-230	c33	N78-32339	US-PATENT-CLASS-307-295	c33	N74-34638
US-PATENT-CLASS-307-231	c09	N72-22202	US-PATENT-CLASS-307-295	c33	N77-13315
US-PATENT-CLASS-307-232	c33	N77-21314	US-PATENT-CLASS-307-296	c08	N71-12494
US-PATENT-CLASS-307-232	c33	N79-11313	US-PATENT-CLASS-307-296	c07	N71-28430
US-PATENT-CLASS-307-233	c09	N72-25257	US-PATENT-CLASS-307-297	c33	N78-17294
US-PATENT-CLASS-307-233	c10	N73-26229	US-PATENT-CLASS-307-299	c08	N72-21198
US-PATENT-CLASS-307-233	c33	N77-13315	US-PATENT-CLASS-307-299	c26	N72-21701
US-PATENT-CLASS-307-233R	c32	N79-10262	US-PATENT-CLASS-307-300	c10	N71-27126
US-PATENT-CLASS-307-234	c10	N71-23315	US-PATENT-CLASS-307-300	c33	N76-31410
US-PATENT-CLASS-307-234	c09	N71-27016	US-PATENT-CLASS-307-303	c08	N72-21198
US-PATENT-CLASS-307-234	c08	N71-29138	US-PATENT-CLASS-307-304	c09	N72-22201
US-PATENT-CLASS-307-235	c10	N71-19471	US-PATENT-CLASS-307-304	c09	N73-20232
US-PATENT-CLASS-307-235	c09	N71-23545	US-PATENT-CLASS-307-304	c33	N74-34638
US-PATENT-CLASS-307-235	c10	N71-24862	US-PATENT-CLASS-307-305	c09	N72-23171
US-PATENT-CLASS-307-235R	c33	N75-18479	US-PATENT-CLASS-307-306	c33	N78-13320
US-PATENT-CLASS-307-237	c09	N72-22200	US-PATENT-CLASS-307-308	c14	N73-28488
US-PATENT-CLASS-307-237	c32	N74-19788	US-PATENT-CLASS-307-309	c35	N75-13213
US-PATENT-CLASS-307-238	c33	N75-31331	US-PATENT-CLASS-307-310	c09	N73-14214
US-PATENT-CLASS-307-238	c33	N77-21314	US-PATENT-CLASS-307-311	c14	N72-18411
US-PATENT-CLASS-307-241	c09	N72-22201	US-PATENT-CLASS-307-311	c08	N72-21198
US-PATENT-CLASS-307-242	c10	N73-13235	US-PATENT-CLASS-307-311	c09	N73-14214
US-PATENT-CLASS-307-243	c09	N71-12516	US-PATENT-CLASS-307-313	c10	N72-20221
US-PATENT-CLASS-307-243	c08	N72-22162	US-PATENT-CLASS-307-313	c33	N76-31410
US-PATENT-CLASS-307-243	c33	N74-22814	US-PATENT-CLASS-307-315	c33	N76-31410
US-PATENT-CLASS-307-246	c09	N71-27016	US-PATENT-CLASS-307-317	c09	N72-22200
US-PATENT-CLASS-307-247	c09	N71-29139	US-PATENT-CLASS-307-317	c09	N72-22201
US-PATENT-CLASS-307-247	c09	N72-22202	US-PATENT-CLASS-307-321	c33	N75-19520
US-PATENT-CLASS-307-251	c09	N71-33109	US-PATENT-CLASS-307-321	c33	N75-25041
US-PATENT-CLASS-307-251	c08	N72-22162	US-PATENT-CLASS-307-322	c10	N72-22236
US-PATENT-CLASS-307-252	c10	N69-39888	US-PATENT-CLASS-307-323	c10	N72-22236
US-PATENT-CLASS-307-252	c09	N71-12514	US-PATENT-CLASS-307-350	c33	N78-18308
US-PATENT-CLASS-307-252F	c09	N72-17153	US-PATENT-CLASS-307-360	c33	N78-18308
US-PATENT-CLASS-307-252J	c09	N72-17153	US-PATENT-CLASS-308-DIG.1	c15	N72-17451
US-PATENT-CLASS-307-252J	c09	N72-22201	US-PATENT-CLASS-308-DIG.1	c37	N79-10418
US-PATENT-CLASS-307-252K	c09	N72-22201	US-PATENT-CLASS-308-DIG.8	c24	N79-17916
US-PATENT-CLASS-307-252L	c33	N74-27682	US-PATENT-CLASS-308-DIG.9	c24	N79-17916
US-PATENT-CLASS-307-252N	c09	N72-23171	US-PATENT-CLASS-308-1	c31	N71-26537
US-PATENT-CLASS-307-252Q	c33	N74-27682	US-PATENT-CLASS-308-2	c15	N71-23812
US-PATENT-CLASS-307-252R	c09	N72-23171	US-PATENT-CLASS-308-2A	c15	N72-26371
US-PATENT-CLASS-307-253	c10	N71-27126	US-PATENT-CLASS-308-2A	c15	N73-12488
US-PATENT-CLASS-307-254	c10	N71-24799	US-PATENT-CLASS-308-5	c15	N71-10617
US-PATENT-CLASS-307-254	c09	N72-22200	US-PATENT-CLASS-308-5	c15	N72-11388
US-PATENT-CLASS-307-255	c33	N76-31410	US-PATENT-CLASS-308-5	c15	N72-17451
US-PATENT-CLASS-307-257	c09	N72-21247	US-PATENT-CLASS-308-5R	c37	N77-28486
US-PATENT-CLASS-307-259	c09	N72-21247	US-PATENT-CLASS-308-5R	c37	N79-10418
US-PATENT-CLASS-307-259	c09	N72-23171	US-PATENT-CLASS-308-9	c15	N70-34664
US-PATENT-CLASS-307-259	c10	N73-13235	US-PATENT-CLASS-308-9	c15	N70-38620
US-PATENT-CLASS-307-260	c09	N71-23311	US-PATENT-CLASS-308-9	c15	N70-39896
US-PATENT-CLASS-307-260	c05	N71-23317	US-PATENT-CLASS-308-9	c15	N71-20739

NUMBER INDEX

US-PATENT-CLASS-308-9	c14	N71-26627	US-PATENT-CLASS-310-26	c71	N79-20827
US-PATENT-CLASS-308-9	c15	N72-17451	US-PATENT-CLASS-310-40	c20	N75-24837
US-PATENT-CLASS-308-9	c15	N73-32359	US-PATENT-CLASS-310-42	c14	N72-22439
US-PATENT-CLASS-308-9	c37	N76-15461	US-PATENT-CLASS-310-46	c33	N79-20314
US-PATENT-CLASS-308-9	c37	N77-28486	US-PATENT-CLASS-310-51	c15	N71-27169
US-PATENT-CLASS-308-9	c37	N79-10418	US-PATENT-CLASS-310-52	c20	N75-24837
US-PATENT-CLASS-308-10	c15	N71-22997	US-PATENT-CLASS-310-54	c09	N71-20446
US-PATENT-CLASS-308-10	c15	N72-33476	US-PATENT-CLASS-310-68	c15	N72-25456
US-PATENT-CLASS-308-10	c35	N74-18323	US-PATENT-CLASS-310-80	c15	N72-25456
US-PATENT-CLASS-308-10	c37	N75-18574	US-PATENT-CLASS-310-82	c33	N79-20314
US-PATENT-CLASS-308-10	c37	N76-18459	US-PATENT-CLASS-310-83	c15	N72-25456
US-PATENT-CLASS-308-10	c37	N77-17464	US-PATENT-CLASS-310-93	c15	N71-17652
US-PATENT-CLASS-308-10	c44	N78-24608	US-PATENT-CLASS-310-101	c15	N71-24696
US-PATENT-CLASS-308-10	c37	N78-27424	US-PATENT-CLASS-310-111	c33	N77-26387
US-PATENT-CLASS-308-35	c15	N73-32359	US-PATENT-CLASS-310-153	c44	N78-24608
US-PATENT-CLASS-308-72	c37	N76-15461	US-PATENT-CLASS-310-154	c44	N78-24608
US-PATENT-CLASS-308-72	c37	N77-32500	US-PATENT-CLASS-310-168	c09	N71-25999
US-PATENT-CLASS-308-72	c37	N79-11404	US-PATENT-CLASS-310-168	c33	N77-26387
US-PATENT-CLASS-308-73	c37	N74-21061	US-PATENT-CLASS-310-178	c44	N78-24608
US-PATENT-CLASS-308-73	c37	N75-30562	US-PATENT-CLASS-310-231	c33	N79-20314
US-PATENT-CLASS-308-73	c37	N76-15461	US-PATENT-CLASS-310-254	c09	N71-25999
US-PATENT-CLASS-308-73	c37	N77-28486	US-PATENT-CLASS-310-269	c44	N78-24608
US-PATENT-CLASS-308-78	c24	N79-17916	US-PATENT-CLASS-310-322	c71	N79-20827
US-PATENT-CLASS-308-87B	c24	N79-17916	US-PATENT-CLASS-310-326	c38	N79-14398
US-PATENT-CLASS-308-121	c37	N74-32921	US-PATENT-CLASS-310-334	c71	N79-20827
US-PATENT-CLASS-308-121	c37	N75-30562	US-PATENT-CLASS-310-336	c38	N79-14398
US-PATENT-CLASS-308-121	c37	N79-10418	US-PATENT-CLASS-311-37	c35	N75-29380
US-PATENT-CLASS-308-122	c37	N76-15461	US-PATENT-CLASS-312-1	c05	N71-23080
US-PATENT-CLASS-308-160	c37	N76-15461	US-PATENT-CLASS-312-1	c05	N73-20137
US-PATENT-CLASS-308-160	c37	N76-29588	US-PATENT-CLASS-312-1	c37	N74-20063
US-PATENT-CLASS-308-160	c37	N79-10418	US-PATENT-CLASS-312-209	c37	N74-18123
US-PATENT-CLASS-308-163	c37	N76-29588	US-PATENT-CLASS-312-257	c31	N72-22874
US-PATENT-CLASS-308-163	c37	N79-10418	US-PATENT-CLASS-312-296	c09	N71-18600
US-PATENT-CLASS-308-168	c24	N79-17916	US-PATENT-CLASS-313-DIG. 8	c28	N73-24783
US-PATENT-CLASS-308-170	c15	N71-28465	US-PATENT-CLASS-313-7	c14	N71-18482
US-PATENT-CLASS-308-170	c37	N76-29588	US-PATENT-CLASS-313-7	c14	N73-32324
US-PATENT-CLASS-308-171	c24	N79-17916	US-PATENT-CLASS-313-11.5	c28	N70-39925
US-PATENT-CLASS-308-172	c37	N79-10418	US-PATENT-CLASS-313-22	c09	N71-26787
US-PATENT-CLASS-308-174	c54	N75-12616	US-PATENT-CLASS-313-22	c31	N78-17237
US-PATENT-CLASS-308-176	c15	N71-22982	US-PATENT-CLASS-313-22	c31	N78-25256
US-PATENT-CLASS-308-177	c15	N71-29136	US-PATENT-CLASS-313-22	c34	N79-20336
US-PATENT-CLASS-308-187	c15	N71-26189	US-PATENT-CLASS-313-32	c33	N78-12913
US-PATENT-CLASS-308-188	c15	N73-30458	US-PATENT-CLASS-313-32	c33	N77-21315
US-PATENT-CLASS-308-188	c37	N74-21064	US-PATENT-CLASS-313-35	c34	N79-20336
US-PATENT-CLASS-308-191	c37	N74-21064	US-PATENT-CLASS-313-44	c15	N69-24319
US-PATENT-CLASS-308-191	c37	N75-31446	US-PATENT-CLASS-313-60	c33	N77-22386
US-PATENT-CLASS-308-193	c15	N73-30458	US-PATENT-CLASS-313-615	c73	N74-26767
US-PATENT-CLASS-308-194	c37	N79-11404	US-PATENT-CLASS-313-615	c37	N78-13436
US-PATENT-CLASS-308-195	c15	N72-22490	US-PATENT-CLASS-313-63	c28	N70-41576
US-PATENT-CLASS-308-195	c37	N75-31446	US-PATENT-CLASS-313-63	c09	N71-10618
US-PATENT-CLASS-308-195	c37	N77-32500	US-PATENT-CLASS-313-63	c28	N71-26781
US-PATENT-CLASS-308-195	c37	N77-32501	US-PATENT-CLASS-313-63	c28	N73-24783
US-PATENT-CLASS-308-201	c37	N75-31446	US-PATENT-CLASS-313-63	c28	N73-27699
US-PATENT-CLASS-310-2	c03	N72-23048	US-PATENT-CLASS-313-63	c75	N75-13625
US-PATENT-CLASS-310-4	c09	N69-21313	US-PATENT-CLASS-313-93	c35	N74-26949
US-PATENT-CLASS-310-4	c03	N69-39898	US-PATENT-CLASS-313-94	c33	N76-31409
US-PATENT-CLASS-310-4	c09	N69-39929	US-PATENT-CLASS-313-94	c74	N78-18905
US-PATENT-CLASS-310-4	c03	N70-34134	US-PATENT-CLASS-313-104	c14	N73-32317
US-PATENT-CLASS-310-4	c03	N71-11055	US-PATENT-CLASS-313-109.5	c09	N71-33519
US-PATENT-CLASS-310-4	c22	N71-23599	US-PATENT-CLASS-313-110	c09	N71-15251
US-PATENT-CLASS-310-4	c09	N71-24807	US-PATENT-CLASS-313-146	c33	N77-22386
US-PATENT-CLASS-310-4	c33	N71-27862	US-PATENT-CLASS-313-153	c33	N74-12913
US-PATENT-CLASS-310-4	c09	N71-28421	US-PATENT-CLASS-313-156	c25	N70-34661
US-PATENT-CLASS-310-4	c09	N72-25260	US-PATENT-CLASS-313-161	c25	N73-25760
US-PATENT-CLASS-310-4	c09	N72-27228	US-PATENT-CLASS-313-161	c09	N73-30181
US-PATENT-CLASS-310-4	c20	N75-24837	US-PATENT-CLASS-313-161	c33	N77-21315
US-PATENT-CLASS-310-4	c36	N75-30524	US-PATENT-CLASS-313-175	c33	N77-21316
US-PATENT-CLASS-310-4	c44	N76-16612	US-PATENT-CLASS-313-175	c31	N78-17238
US-PATENT-CLASS-310-4A	c37	N77-19458	US-PATENT-CLASS-313-176	c31	N78-17238
US-PATENT-CLASS-310-4R	c33	N74-27683	US-PATENT-CLASS-313-180	c33	N77-21316
US-PATENT-CLASS-310-4R	c73	N77-18891	US-PATENT-CLASS-313-180	c31	N78-17238
US-PATENT-CLASS-310-5	c03	N70-35408	US-PATENT-CLASS-313-182	c33	N77-22386
US-PATENT-CLASS-310-8.2	c35	N76-15432	US-PATENT-CLASS-313-184	c33	N77-21315
US-PATENT-CLASS-310-8.5	c14	N71-22993	US-PATENT-CLASS-313-184	c33	N77-21316
US-PATENT-CLASS-310-9.1	c15	N71-21311	US-PATENT-CLASS-313-184	c31	N78-17238
US-PATENT-CLASS-310-10	c03	N69-39890	US-PATENT-CLASS-313-186	c25	N72-24753
US-PATENT-CLASS-310-10	c09	N71-23443	US-PATENT-CLASS-313-209	c33	N74-12913
US-PATENT-CLASS-310-10	c09	N71-24904	US-PATENT-CLASS-313-212	c25	N72-24753
US-PATENT-CLASS-310-10	c09	N72-25255	US-PATENT-CLASS-313-217	c28	N73-27699
US-PATENT-CLASS-310-10	c20	N75-24837	US-PATENT-CLASS-313-217	c33	N74-12913
US-PATENT-CLASS-310-11	c25	N69-21929	US-PATENT-CLASS-313-218	c28	N73-27699
US-PATENT-CLASS-310-11	c03	N69-39983	US-PATENT-CLASS-313-224	c25	N72-24753
US-PATENT-CLASS-310-11	c03	N70-36803	US-PATENT-CLASS-313-224	c33	N74-12913
US-PATENT-CLASS-310-11	c14	N72-22439	US-PATENT-CLASS-313-224	c33	N77-21315
US-PATENT-CLASS-310-11	c12	N72-25292	US-PATENT-CLASS-313-224	c31	N78-17238
US-PATENT-CLASS-310-11	c35	N74-21018	US-PATENT-CLASS-313-230	c28	N71-28850
US-PATENT-CLASS-310-11	c36	N75-32441	US-PATENT-CLASS-313-230	c28	N73-27699
US-PATENT-CLASS-310-15	c09	N72-25255	US-PATENT-CLASS-313-230	c20	N77-20162
US-PATENT-CLASS-310-20	c71	N79-20827	US-PATENT-CLASS-313-231	c06	N69-39889

NUMBER INDEX

US-PATENT-CLASS-313-231	c09 N71-23190	US-PATENT-CLASS-315-211	c33 N74-20859
US-PATENT-CLASS-313-231	c09 N71-33519	US-PATENT-CLASS-315-228	c33 N74-20859
US-PATENT-CLASS-313-231	c25 N72-24753	US-PATENT-CLASS-315-241	c09 N71-13518
US-PATENT-CLASS-313-231	c25 N72-32688	US-PATENT-CLASS-315-241R	c37 N79-11405
US-PATENT-CLASS-313-231	c28 N73-24783	US-PATENT-CLASS-315-248	c09 N73-30181
US-PATENT-CLASS-313-231	c25 N73-25760	US-PATENT-CLASS-315-258	c16 N73-32391
US-PATENT-CLASS-313-231.3	c20 N77-20162	US-PATENT-CLASS-315-297	c14 N72-27411
US-PATENT-CLASS-313-231.3	c75 N78-27913	US-PATENT-CLASS-315-307	c14 N72-27411
US-PATENT-CLASS-313-231.4	c20 N77-10148	US-PATENT-CLASS-315-310	c14 N72-27411
US-PATENT-CLASS-313-236	c09 N71-26182	US-PATENT-CLASS-315-311	c14 N72-27411
US-PATENT-CLASS-313-237	c09 N71-26182	US-PATENT-CLASS-315-324	c09 N73-30181
US-PATENT-CLASS-313-240	c20 N77-10148	US-PATENT-CLASS-315-326	c25 N72-24753
US-PATENT-CLASS-313-250	c31 N76-31365	US-PATENT-CLASS-315-344	c33 N77-21315
US-PATENT-CLASS-313-271	c25 N71-20747	US-PATENT-CLASS-315-349	c09 N72-25250
US-PATENT-CLASS-313-306	c31 N76-31365	US-PATENT-CLASS-315-356	c16 N73-32391
US-PATENT-CLASS-313-309	c10 N72-27246	US-PATENT-CLASS-315-358	c25 N72-24753
US-PATENT-CLASS-313-309	c31 N76-31365	US-PATENT-CLASS-315-367	c33 N75-26244
US-PATENT-CLASS-313-311	c73 N77-18891	US-PATENT-CLASS-315-369	c33 N75-26244
US-PATENT-CLASS-313-336	c10 N72-27246	US-PATENT-CLASS-315-387	c33 N75-26244
US-PATENT-CLASS-313-338	c31 N76-31365	US-PATENT-CLASS-317-DIG.3	c10 N71-26334
US-PATENT-CLASS-313-351	c10 N72-27246	US-PATENT-CLASS-317-DIG.6	c10 N73-26228
US-PATENT-CLASS-313-352	c09 N71-22987	US-PATENT-CLASS-317-2D	c33 N77-10429
US-PATENT-CLASS-313-355	c28 N73-27699	US-PATENT-CLASS-317-9	c09 N71-22796
US-PATENT-CLASS-313-356	c14 N72-29464	US-PATENT-CLASS-317-9	c09 N71-27001
US-PATENT-CLASS-313-360	c20 N77-20162	US-PATENT-CLASS-317-16	c09 N69-39897
US-PATENT-CLASS-313-361	c20 N77-10148	US-PATENT-CLASS-317-16	c33 N74-17929
US-PATENT-CLASS-313-442	c74 N78-18905	US-PATENT-CLASS-317-20	c10 N71-26531
US-PATENT-CLASS-314-129	c15 N69-24266	US-PATENT-CLASS-317-31	c09 N71-12526
US-PATENT-CLASS-315-DIG.2	c16 N73-32391	US-PATENT-CLASS-317-31	c10 N71-23543
US-PATENT-CLASS-315-3.5	c09 N73-13208	US-PATENT-CLASS-317-31	c33 N74-17929
US-PATENT-CLASS-315-3.5	c33 N79-10339	US-PATENT-CLASS-317-31	c33 N77-14333
US-PATENT-CLASS-315-3.6	c33 N79-10339	US-PATENT-CLASS-317-33	c10 N71-26531
US-PATENT-CLASS-315-5.35	c33 N74-10195	US-PATENT-CLASS-317-33	c09 N71-27001
US-PATENT-CLASS-315-5.38	c09 N73-13208	US-PATENT-CLASS-317-33	c10 N71-27366
US-PATENT-CLASS-315-5.38	c33 N74-10195	US-PATENT-CLASS-317-33	c09 N71-29008
US-PATENT-CLASS-315-10	c33 N74-21850	US-PATENT-CLASS-317-33SC	c33 N74-14956
US-PATENT-CLASS-315-10	c33 N75-26244	US-PATENT-CLASS-317-43	c33 N74-14956
US-PATENT-CLASS-315-11	c33 N74-21850	US-PATENT-CLASS-317-46	c33 N74-14956
US-PATENT-CLASS-315-12	c33 N74-21850	US-PATENT-CLASS-317-47	c33 N74-14956
US-PATENT-CLASS-315-18	c32 N74-20813	US-PATENT-CLASS-317-48	c33 N74-14956
US-PATENT-CLASS-315-18	c33 N75-19517	US-PATENT-CLASS-317-54	c09 N71-29008
US-PATENT-CLASS-315-22	c10 N72-20225	US-PATENT-CLASS-317-60	c09 N71-29008
US-PATENT-CLASS-315-22	c32 N74-20813	US-PATENT-CLASS-317-100	c10 N71-28783
US-PATENT-CLASS-315-22	c33 N78-17293	US-PATENT-CLASS-317-100	c10 N73-25243
US-PATENT-CLASS-315-22R	c10 N72-31273	US-PATENT-CLASS-317-101	c09 N71-26133
US-PATENT-CLASS-315-24	c08 N71-20571	US-PATENT-CLASS-317-101A	c09 N72-33205
US-PATENT-CLASS-315-25	c10 N72-20225	US-PATENT-CLASS-317-101A	c23 N73-13660
US-PATENT-CLASS-315-26	c09 N71-23189	US-PATENT-CLASS-317-101DH	c15 N72-22486
US-PATENT-CLASS-315-30	c33 N75-27250	US-PATENT-CLASS-317-101DH	c10 N73-25243
US-PATENT-CLASS-315-30R	c10 N72-31273	US-PATENT-CLASS-317-117	c15 N72-22486
US-PATENT-CLASS-315-36	c10 N72-27246	US-PATENT-CLASS-317-120	c15 N72-22486
US-PATENT-CLASS-315-101	c16 N73-32391	US-PATENT-CLASS-317-122	c15 N71-18701
US-PATENT-CLASS-315-108	c09 N71-33519	US-PATENT-CLASS-317-123	c09 N71-24892
US-PATENT-CLASS-315-108	c33 N77-21316	US-PATENT-CLASS-317-140	c09 N70-34502
US-PATENT-CLASS-315-108	c36 N78-17366	US-PATENT-CLASS-317-148.5	c10 N71-23271
US-PATENT-CLASS-315-108	c36 N79-21333	US-PATENT-CLASS-317-148.5	c09 N71-24892
US-PATENT-CLASS-315-110	c33 N77-21316	US-PATENT-CLASS-317-153	c10 N71-26334
US-PATENT-CLASS-315-111	c25 N70-33267	US-PATENT-CLASS-317-155.5	c09 N71-29008
US-PATENT-CLASS-315-111	c25 N70-41628	US-PATENT-CLASS-317-157.5	c15 N69-21472
US-PATENT-CLASS-315-111	c25 N71-15562	US-PATENT-CLASS-317-158	c15 N73-28516
US-PATENT-CLASS-315-111	c24 N71-16213	US-PATENT-CLASS-317-158	c26 N73-28710
US-PATENT-CLASS-315-111	c25 N71-21693	US-PATENT-CLASS-317-158	c15 N73-32361
US-PATENT-CLASS-315-111	c28 N71-26781	US-PATENT-CLASS-317-230	c09 N71-27232
US-PATENT-CLASS-315-111	c25 N71-29184	US-PATENT-CLASS-317-230	c26 N72-28761
US-PATENT-CLASS-315-111	c09 N71-33519	US-PATENT-CLASS-317-231	c09 N71-27232
US-PATENT-CLASS-315-111	c25 N72-24753	US-PATENT-CLASS-317-234	c14 N69-23191
US-PATENT-CLASS-315-111	c25 N72-32688	US-PATENT-CLASS-317-234	c09 N69-27422
US-PATENT-CLASS-315-111	c14 N73-30391	US-PATENT-CLASS-317-234	c26 N71-18064
US-PATENT-CLASS-315-111	c75 N75-13625	US-PATENT-CLASS-317-234A	c15 N73-14469
US-PATENT-CLASS-315-111	c33 N75-29318	US-PATENT-CLASS-317-234D	c14 N72-31446
US-PATENT-CLASS-315-111	c37 N75-29426	US-PATENT-CLASS-317-234E	c33 N74-12951
US-PATENT-CLASS-315-111.2	c75 N78-27913	US-PATENT-CLASS-317-234F	c33 N74-12951
US-PATENT-CLASS-315-111.3	c20 N77-10148	US-PATENT-CLASS-317-234G	c14 N72-31446
US-PATENT-CLASS-315-111.3	c20 N77-20162	US-PATENT-CLASS-317-234G	c15 N73-14469
US-PATENT-CLASS-315-111.6	c75 N76-14931	US-PATENT-CLASS-317-234G	c09 N73-27150
US-PATENT-CLASS-315-111.6	c20 N77-20162	US-PATENT-CLASS-317-234J	c26 N72-25679
US-PATENT-CLASS-315-135	c09 N72-25250	US-PATENT-CLASS-317-234L	c09 N73-27150
US-PATENT-CLASS-315-151	c14 N72-27411	US-PATENT-CLASS-317-234M	c09 N73-27150
US-PATENT-CLASS-315-153	c14 N73-16483	US-PATENT-CLASS-317-234M	c33 N74-12951
US-PATENT-CLASS-315-153	c74 N79-12890	US-PATENT-CLASS-317-234N	c09 N73-27150
US-PATENT-CLASS-315-156	c14 N72-27411	US-PATENT-CLASS-317-234N	c33 N74-12951
US-PATENT-CLASS-315-158	c14 N72-27411	US-PATENT-CLASS-317-234R	c09 N73-27150
US-PATENT-CLASS-315-160	c09 N71-12580	US-PATENT-CLASS-317-234R	c33 N74-12951
US-PATENT-CLASS-315-169R	c23 N73-13660	US-PATENT-CLASS-317-234V	c26 N72-21701
US-PATENT-CLASS-315-169R	c36 N75-19652	US-PATENT-CLASS-317-234V	c09 N73-15235
US-PATENT-CLASS-315-169TV	c23 N73-13660	US-PATENT-CLASS-317-235	c09 N69-24318
US-PATENT-CLASS-315-176	c33 N77-28385	US-PATENT-CLASS-317-235	c09 N72-33205
US-PATENT-CLASS-315-209CD	c37 N79-11405	US-PATENT-CLASS-317-235A	c26 N72-25679
US-PATENT-CLASS-315-209SC	c37 N79-11405	US-PATENT-CLASS-317-235A	c09 N72-33205

NUMBER INDEX

US-PATENT-CLASS-317-235AG	c09	N73-15235	US-PATENT-CLASS-318-640	c54	N75-27758
US-PATENT-CLASS-317-235AJ	c26	N72-25679	US-PATENT-CLASS-318-640	c35	N79-14348
US-PATENT-CLASS-317-235AJ	c09	N72-33205	US-PATENT-CLASS-318-649	c33	N75-13139
US-PATENT-CLASS-317-235AM	c09	N73-19235	US-PATENT-CLASS-318-653	c10	N71-27136
US-PATENT-CLASS-317-235H	c35	N75-13213	US-PATENT-CLASS-318-664	c33	N74-29556
US-PATENT-CLASS-317-235K	c09	N73-15235	US-PATENT-CLASS-318-675	c33	N75-13139
US-PATENT-CLASS-317-235M	c14	N72-31446	US-PATENT-CLASS-318-675	c37	N77-27400
US-PATENT-CLASS-317-235N	c09	N73-19235	US-PATENT-CLASS-320-2	c44	N77-14581
US-PATENT-CLASS-317-235N	c35	N74-15090	US-PATENT-CLASS-320-6	c44	N78-14625
US-PATENT-CLASS-317-235R	c26	N72-21701	US-PATENT-CLASS-320-9	c44	N78-25531
US-PATENT-CLASS-317-235R	c26	N72-25679	US-PATENT-CLASS-320-13	c03	N71-29129
US-PATENT-CLASS-317-235R	c14	N72-31446	US-PATENT-CLASS-320-13	c44	N78-25531
US-PATENT-CLASS-317-235R	c09	N73-19235	US-PATENT-CLASS-320-15	c44	N78-14625
US-PATENT-CLASS-317-235R	c09	N73-32112	US-PATENT-CLASS-320-15	c44	N78-25531
US-PATENT-CLASS-317-235T	c09	N73-19235	US-PATENT-CLASS-320-17	c03	N71-24605
US-PATENT-CLASS-317-235UA	c09	N73-19235	US-PATENT-CLASS-320-18	c44	N78-14625
US-PATENT-CLASS-317-235WA	c09	N73-32112	US-PATENT-CLASS-320-21	c44	N76-18643
US-PATENT-CLASS-317-238	c09	N71-27232	US-PATENT-CLASS-320-22	c44	N76-18643
US-PATENT-CLASS-317-245	c33	N79-21265	US-PATENT-CLASS-320-23	c03	N71-19438
US-PATENT-CLASS-317-246	c14	N69-21541	US-PATENT-CLASS-320-32	c44	N78-25531
US-PATENT-CLASS-317-246	c33	N76-21390	US-PATENT-CLASS-320-39	c03	N71-24719
US-PATENT-CLASS-317-246	c35	N76-22509	US-PATENT-CLASS-320-39	c44	N78-25531
US-PATENT-CLASS-317-247	c14	N72-24477	US-PATENT-CLASS-320-40	c44	N78-14625
US-PATENT-CLASS-317-258	c09	N71-13522	US-PATENT-CLASS-320-48	c03	N72-25020
US-PATENT-CLASS-317-258	c33	N76-15373	US-PATENT-CLASS-320-53	c33	N78-17296
US-PATENT-CLASS-317-261	c26	N72-28761	US-PATENT-CLASS-321-1.5	c09	N73-32109
US-PATENT-CLASS-317-261	c33	N76-15373	US-PATENT-CLASS-321-2	c03	N69-21330
US-PATENT-CLASS-318-20.105	c08	N71-27057	US-PATENT-CLASS-321-2	c03	N69-25146
US-PATENT-CLASS-318-22	c15	N71-17694	US-PATENT-CLASS-321-2	c03	N71-12255
US-PATENT-CLASS-318-31	c15	N71-28952	US-PATENT-CLASS-321-2	c09	N71-23188
US-PATENT-CLASS-318-116	c71	N79-20827	US-PATENT-CLASS-321-2	c03	N71-23239
US-PATENT-CLASS-318-137	c33	N75-19524	US-PATENT-CLASS-321-2	c10	N71-26085
US-PATENT-CLASS-318-138	c09	N71-10677	US-PATENT-CLASS-321-2	c09	N72-22196
US-PATENT-CLASS-318-138	c14	N71-17585	US-PATENT-CLASS-321-2	c09	N72-22203
US-PATENT-CLASS-318-138	c10	N71-18772	US-PATENT-CLASS-321-2	c03	N72-23048
US-PATENT-CLASS-318-138	c09	N71-25999	US-PATENT-CLASS-321-2	c09	N72-25249
US-PATENT-CLASS-318-138	c33	N77-26386	US-PATENT-CLASS-321-2	c09	N72-25251
US-PATENT-CLASS-318-167	c33	N75-19524	US-PATENT-CLASS-321-2	c09	N72-25252
US-PATENT-CLASS-318-176	c33	N75-19524	US-PATENT-CLASS-321-2	c09	N72-25253
US-PATENT-CLASS-318-183	c33	N75-19524	US-PATENT-CLASS-321-2	c09	N72-25254
US-PATENT-CLASS-318-200	c33	N78-10376	US-PATENT-CLASS-321-2	c33	N74-11049
US-PATENT-CLASS-318-227	c07	N71-33613	US-PATENT-CLASS-321-2	c33	N77-10428
US-PATENT-CLASS-318-227	c33	N75-15874	US-PATENT-CLASS-321-5	c08	N71-18752
US-PATENT-CLASS-318-227	c33	N77-26386	US-PATENT-CLASS-321-8R	c35	N74-18090
US-PATENT-CLASS-318-227	c33	N78-10376	US-PATENT-CLASS-321-9	c10	N71-25139
US-PATENT-CLASS-318-230	c07	N71-33613	US-PATENT-CLASS-321-10	c09	N72-17154
US-PATENT-CLASS-318-230	c10	N73-32145	US-PATENT-CLASS-321-11	c09	N69-39984
US-PATENT-CLASS-318-230	c33	N75-15874	US-PATENT-CLASS-321-11	c09	N72-25252
US-PATENT-CLASS-318-230	c33	N78-10376	US-PATENT-CLASS-321-11	c10	N73-26228
US-PATENT-CLASS-318-231	c10	N73-32145	US-PATENT-CLASS-321-12	c10	N71-27366
US-PATENT-CLASS-318-231	c33	N75-15874	US-PATENT-CLASS-321-13	c33	N77-14333
US-PATENT-CLASS-318-254	c09	N71-25999	US-PATENT-CLASS-321-14	c09	N72-22196
US-PATENT-CLASS-318-254	c09	N73-32107	US-PATENT-CLASS-321-15	c09	N72-22203
US-PATENT-CLASS-318-254	c33	N77-26386	US-PATENT-CLASS-321-15	c33	N75-19522
US-PATENT-CLASS-318-257	c10	N71-18724	US-PATENT-CLASS-321-18	c09	N72-22203
US-PATENT-CLASS-318-258	c09	N71-26092	US-PATENT-CLASS-321-18	c09	N72-25251
US-PATENT-CLASS-318-260	c09	N70-38712	US-PATENT-CLASS-321-18	c09	N72-25252
US-PATENT-CLASS-318-265	c15	N71-24895	US-PATENT-CLASS-321-18	c33	N74-11049
US-PATENT-CLASS-318-267	c37	N77-27400	US-PATENT-CLASS-321-19	c09	N72-22196
US-PATENT-CLASS-318-308	c11	N72-20244	US-PATENT-CLASS-321-19	c09	N72-25252
US-PATENT-CLASS-318-314	c10	N71-20448	US-PATENT-CLASS-321-19	c33	N77-10428
US-PATENT-CLASS-318-314	c09	N75-24758	US-PATENT-CLASS-321-25	c09	N72-22196
US-PATENT-CLASS-318-317	c09	N71-28886	US-PATENT-CLASS-321-45	c09	N71-24800
US-PATENT-CLASS-318-318	c09	N71-24805	US-PATENT-CLASS-321-45	c09	N72-22203
US-PATENT-CLASS-318-318	c09	N75-24758	US-PATENT-CLASS-321-45C	c10	N73-26228
US-PATENT-CLASS-318-327	c11	N72-20244	US-PATENT-CLASS-321-45ER	c09	N72-25252
US-PATENT-CLASS-318-328	c09	N73-32107	US-PATENT-CLASS-321-45F	c09	N72-25252
US-PATENT-CLASS-318-331	c09	N71-28886	US-PATENT-CLASS-321-45R	c09	N72-25254
US-PATENT-CLASS-318-341	c10	N73-32145	US-PATENT-CLASS-321-45R	c33	N74-22864
US-PATENT-CLASS-318-341	c09	N75-24758	US-PATENT-CLASS-321-45S	c33	N74-11049
US-PATENT-CLASS-318-345	c09	N71-28886	US-PATENT-CLASS-321-47	c09	N71-33109
US-PATENT-CLASS-318-376	c10	N71-16030	US-PATENT-CLASS-321-47	c09	N72-25253
US-PATENT-CLASS-318-376	c11	N72-20244	US-PATENT-CLASS-321-48	c12	N71-20896
US-PATENT-CLASS-318-382	c15	N71-24695	US-PATENT-CLASS-321-60	c14	N71-23174
US-PATENT-CLASS-318-468	c37	N77-27400	US-PATENT-CLASS-321-61	c09	N71-27364
US-PATENT-CLASS-318-470	c37	N77-27400	US-PATENT-CLASS-321-64	c09	N71-27364
US-PATENT-CLASS-318-489	c02	N73-19004	US-PATENT-CLASS-321-69	c10	N71-26414
US-PATENT-CLASS-318-504	c09	N71-28886	US-PATENT-CLASS-322-2	c03	N72-23048
US-PATENT-CLASS-318-571	c10	N71-27136	US-PATENT-CLASS-322-32	c09	N71-27364
US-PATENT-CLASS-318-573	c35	N79-14348	US-PATENT-CLASS-322-96	c33	N77-26387
US-PATENT-CLASS-318-576	c09	N72-21246	US-PATENT-CLASS-323-DIG.1	c09	N72-21243
US-PATENT-CLASS-318-580	c08	N74-10942	US-PATENT-CLASS-323-DIG.1	c09	N72-25249
US-PATENT-CLASS-318-594	c35	N79-14348	US-PATENT-CLASS-323-DIG.1	c33	N74-11049
US-PATENT-CLASS-318-599	c10	N71-24861	US-PATENT-CLASS-323-DIG.1	c33	N77-10428
US-PATENT-CLASS-318-602	c33	N74-29556	US-PATENT-CLASS-323-4	c33	N78-17294
US-PATENT-CLASS-318-603	c33	N74-29556	US-PATENT-CLASS-323-8	c10	N71-10578
US-PATENT-CLASS-318-608	c33	N75-13139	US-PATENT-CLASS-323-15	c20	N79-20179
US-PATENT-CLASS-318-628	c08	N74-10942	US-PATENT-CLASS-323-17	c09	N72-25249
US-PATENT-CLASS-318-640	c33	N75-13139	US-PATENT-CLASS-323-17	c33	N77-10428

NUMBER INDEX

US-PATENT-CLASS-323-18	c33	N78-17295	US-PATENT-CLASS-324-61	c14	N70-36618
US-PATENT-CLASS-323-19	c08	N72-31226	US-PATENT-CLASS-324-61	c14	N71-10797
US-PATENT-CLASS-323-19	c33	N78-17296	US-PATENT-CLASS-324-61	c18	N71-27397
US-PATENT-CLASS-323-20	c14	N71-27407	US-PATENT-CLASS-324-61	c14	N72-22442
US-PATENT-CLASS-323-20	c20	N79-20179	US-PATENT-CLASS-324-61R	c14	N72-24477
US-PATENT-CLASS-323-22	c09	N71-21449	US-PATENT-CLASS-324-61R	c35	N76-22509
US-PATENT-CLASS-323-22	c09	N71-23316	US-PATENT-CLASS-324-62R	c14	N73-30388
US-PATENT-CLASS-323-22T	c09	N72-21243	US-PATENT-CLASS-324-64	c15	N72-21464
US-PATENT-CLASS-323-22T	c09	N72-25249	US-PATENT-CLASS-324-65	c14	N71-27186
US-PATENT-CLASS-323-22T	c33	N77-10428	US-PATENT-CLASS-324-65P	c14	N73-20478
US-PATENT-CLASS-323-23	c33	N77-10428	US-PATENT-CLASS-324-65R	c15	N72-23497
US-PATENT-CLASS-323-38	c09	N72-21243	US-PATENT-CLASS-324-66	c05	N72-16015
US-PATENT-CLASS-323-44P	c33	N79-17133	US-PATENT-CLASS-324-70	c14	N70-41332
US-PATENT-CLASS-323-48	c09	N71-27053	US-PATENT-CLASS-324-70	c14	N71-22990
US-PATENT-CLASS-323-48	c09	N72-25262	US-PATENT-CLASS-324-70	c10	N71-24863
US-PATENT-CLASS-323-56	c10	N71-22961	US-PATENT-CLASS-324-71	c09	N71-24843
US-PATENT-CLASS-323-56	c09	N71-24893	US-PATENT-CLASS-324-71CP	c35	N76-22509
US-PATENT-CLASS-323-56	c09	N72-22196	US-PATENT-CLASS-324-71R	c09	N72-21246
US-PATENT-CLASS-323-60	c09	N71-27053	US-PATENT-CLASS-324-71R	c15	N72-21464
US-PATENT-CLASS-323-82	c09	N72-25262	US-PATENT-CLASS-324-72	c25	N71-15650
US-PATENT-CLASS-323-89C	c09	N72-22196	US-PATENT-CLASS-324-72	c10	N71-19421
US-PATENT-CLASS-323-93	c33	N77-31404	US-PATENT-CLASS-324-72	c14	N71-23699
US-PATENT-CLASS-323-106	c33	N74-22885	US-PATENT-CLASS-324-72	c07	N73-20175
US-PATENT-CLASS-323-122	c33	N74-22885	US-PATENT-CLASS-324-72	c14	N73-32318
US-PATENT-CLASS-323-128	c33	N74-22885	US-PATENT-CLASS-324-72	c33	N74-27862
US-PATENT-CLASS-324-5	c14	N71-20428	US-PATENT-CLASS-324-72	c33	N75-26246
US-PATENT-CLASS-324-5R	c16	N73-13489	US-PATENT-CLASS-324-72	c33	N77-10429
US-PATENT-CLASS-324-DIG.1	c33	N75-19520	US-PATENT-CLASS-324-72	c33	N79-10337
US-PATENT-CLASS-324-DIG.1	c33	N75-25041	US-PATENT-CLASS-324-72	c33	N79-14305
US-PATENT-CLASS-324-0.5	c14	N71-26137	US-PATENT-CLASS-324-72.5	c44	N74-27519
US-PATENT-CLASS-324-0.5	c14	N71-26266	US-PATENT-CLASS-324-73	c14	N71-28991
US-PATENT-CLASS-324-0.5	c36	N79-14362	US-PATENT-CLASS-324-73AT	c08	N72-22166
US-PATENT-CLASS-324-5	c14	N71-28991	US-PATENT-CLASS-324-74	c35	N78-28411
US-PATENT-CLASS-324-20R	c09	N72-23172	US-PATENT-CLASS-324-77	c09	N71-10659
US-PATENT-CLASS-324-20R	c44	N79-12541	US-PATENT-CLASS-324-77	c07	N71-24622
US-PATENT-CLASS-324-22	c44	N79-12541	US-PATENT-CLASS-324-77B	c60	N75-13539
US-PATENT-CLASS-324-29.5	c03	N72-25020	US-PATENT-CLASS-324-77B	c32	N79-10262
US-PATENT-CLASS-324-29.5	c14	N73-30388	US-PATENT-CLASS-324-77C	c32	N79-10262
US-PATENT-CLASS-324-29.5	c44	N74-27519	US-PATENT-CLASS-324-77G	c08	N72-20177
US-PATENT-CLASS-324-30B	c33	N76-19339	US-PATENT-CLASS-324-77H	c35	N75-21582
US-PATENT-CLASS-324-30R	c14	N73-20478	US-PATENT-CLASS-324-77K	c35	N79-10391
US-PATENT-CLASS-324-32	c14	N71-16014	US-PATENT-CLASS-324-77R	c10	N73-25240
US-PATENT-CLASS-324-32	c33	N75-18477	US-PATENT-CLASS-324-78D	c09	N72-25257
US-PATENT-CLASS-324-32	c33	N75-19522	US-PATENT-CLASS-324-78D	c52	N74-12778
US-PATENT-CLASS-324-32	c35	N78-28411	US-PATENT-CLASS-324-78E	c14	N73-24473
US-PATENT-CLASS-324-33	c25	N69-39884	US-PATENT-CLASS-324-78J	c10	N73-25240
US-PATENT-CLASS-324-33	c14	N70-35666	US-PATENT-CLASS-324-78J	c33	N75-19515
US-PATENT-CLASS-324-33	c24	N71-20518	US-PATENT-CLASS-324-79D	c14	N73-30388
US-PATENT-CLASS-324-33	c14	N71-21090	US-PATENT-CLASS-324-79D	c33	N76-16331
US-PATENT-CLASS-324-33	c14	N71-27090	US-PATENT-CLASS-324-79R	c14	N72-27408
US-PATENT-CLASS-324-34	c25	N71-16073	US-PATENT-CLASS-324-83A	c10	N72-20224
US-PATENT-CLASS-324-34PL	c35	N74-21018	US-PATENT-CLASS-324-83D	c33	N79-10338
US-PATENT-CLASS-324-34R	c26	N76-18257	US-PATENT-CLASS-324-83Q	c35	N74-21017
US-PATENT-CLASS-324-40	c38	N74-15395	US-PATENT-CLASS-324-83Q	c33	N75-26243
US-PATENT-CLASS-324-41	c10	N72-28240	US-PATENT-CLASS-324-85	c10	N72-20224
US-PATENT-CLASS-324-43	c14	N69-27423	US-PATENT-CLASS-324-85	c33	N79-10338
US-PATENT-CLASS-324-43	c09	N70-40123	US-PATENT-CLASS-324-92	c26	N72-25680
US-PATENT-CLASS-324-43	c14	N71-15962	US-PATENT-CLASS-324-95	c10	N71-12554
US-PATENT-CLASS-324-43	c14	N71-26135	US-PATENT-CLASS-324-95	c14	N73-30388
US-PATENT-CLASS-324-43	c14	N71-27325	US-PATENT-CLASS-324-96	c26	N72-25680
US-PATENT-CLASS-324-43R	c35	N76-16390	US-PATENT-CLASS-324-96	c33	N79-10337
US-PATENT-CLASS-324-52	c14	N72-17325	US-PATENT-CLASS-324-102	c09	N72-11225
US-PATENT-CLASS-324-52	c14	N73-28486	US-PATENT-CLASS-324-102	c33	N78-17930
US-PATENT-CLASS-324-52	c33	N79-18193	US-PATENT-CLASS-324-102	c33	N75-19521
US-PATENT-CLASS-324-54	c33	N75-18477	US-PATENT-CLASS-324-102	c33	N79-11315
US-PATENT-CLASS-324-57	c10	N71-16057	US-PATENT-CLASS-324-102	c33	N79-14305
US-PATENT-CLASS-324-57	c09	N71-20569	US-PATENT-CLASS-324-103	c10	N71-27338
US-PATENT-CLASS-324-57DE	c33	N78-25319	US-PATENT-CLASS-324-106	c14	N70-38602
US-PATENT-CLASS-324-57H	c35	N77-32455	US-PATENT-CLASS-324-106	c08	N71-29138
US-PATENT-CLASS-324-57PS	c35	N75-21582	US-PATENT-CLASS-324-107	c10	N71-27338
US-PATENT-CLASS-324-57R	c15	N72-21464	US-PATENT-CLASS-324-112	c33	N79-14305
US-PATENT-CLASS-324-57R	c14	N73-30388	US-PATENT-CLASS-324-113	c09	N70-41655
US-PATENT-CLASS-324-57R	c35	N74-18090	US-PATENT-CLASS-324-113	c33	N75-19521
US-PATENT-CLASS-324-57R	c33	N79-10338	US-PATENT-CLASS-324-113	c33	N79-11315
US-PATENT-CLASS-324-57R	c35	N79-14349	US-PATENT-CLASS-324-113	c33	N79-14305
US-PATENT-CLASS-324-57RS	c33	N78-25319	US-PATENT-CLASS-324-115	c14	N71-26244
US-PATENT-CLASS-324-58.5	c15	N71-17822	US-PATENT-CLASS-324-115	c10	N72-20222
US-PATENT-CLASS-324-58.5	c25	N71-20563	US-PATENT-CLASS-324-117	c14	N71-23037
US-PATENT-CLASS-324-58.5	c14	N71-26137	US-PATENT-CLASS-324-118	c33	N74-17930
US-PATENT-CLASS-324-58.5	c18	N71-27397	US-PATENT-CLASS-324-119	c09	N72-11225
US-PATENT-CLASS-324-58.5A	c33	N75-26245	US-PATENT-CLASS-324-120	c14	N71-19431
US-PATENT-CLASS-324-58.5B	c43	N78-10529	US-PATENT-CLASS-324-120	c09	N71-23021
US-PATENT-CLASS-324-58.5C	c33	N75-26245	US-PATENT-CLASS-324-123R	c09	N72-11225
US-PATENT-CLASS-324-58A	c33	N78-25319	US-PATENT-CLASS-324-127	c33	N79-18193
US-PATENT-CLASS-324-59	c35	N77-32455	US-PATENT-CLASS-324-130	c35	N78-28411
US-PATENT-CLASS-324-60	c33	N77-31404	US-PATENT-CLASS-324-132	c09	N71-13530
US-PATENT-CLASS-324-60C	c35	N75-12270	US-PATENT-CLASS-324-132	c10	N72-20222
US-PATENT-CLASS-324-60C	c76	N76-20994	US-PATENT-CLASS-324-133	c10	N71-27338
US-PATENT-CLASS-324-61	c14	N69-39785	US-PATENT-CLASS-324-133	c33	N79-10337

NUMBER INDEX

US-PATENT-CLASS-324-133	c33	N79-11315	US-PATENT-CLASS-325-114	c07	N72-25171
US-PATENT-CLASS-324-133	c33	N79-14305	US-PATENT-CLASS-325-114	c03	N76-32140
US-PATENT-CLASS-324-133	c33	N79-18193	US-PATENT-CLASS-325-115	c03	N76-32140
US-PATENT-CLASS-324-158	c09	N69-21926	US-PATENT-CLASS-325-118	c17	N78-17140
US-PATENT-CLASS-324-158D	c15	N72-25457	US-PATENT-CLASS-325-139	c07	N73-25160
US-PATENT-CLASS-324-158D	c76	N76-20994	US-PATENT-CLASS-325-141	c07	N72-25173
US-PATENT-CLASS-324-158R	c76	N76-20994	US-PATENT-CLASS-325-141	c52	N74-26625
US-PATENT-CLASS-324-158T	c15	N72-25457	US-PATENT-CLASS-325-143	c05	N71-12342
US-PATENT-CLASS-324-158T	c35	N75-12270	US-PATENT-CLASS-325-145	c32	N77-14292
US-PATENT-CLASS-324-158T	c76	N76-20994	US-PATENT-CLASS-325-148	c32	N74-19790
US-PATENT-CLASS-324-163	c35	N77-30436	US-PATENT-CLASS-325-151	c08	N71-27057
US-PATENT-CLASS-324-165	c35	N77-30436	US-PATENT-CLASS-325-159	c33	N78-32340
US-PATENT-CLASS-324-173	c35	N78-32396	US-PATENT-CLASS-325-163	c07	N71-23405
US-PATENT-CLASS-324-174	c35	N77-30436	US-PATENT-CLASS-325-185	c07	N71-28430
US-PATENT-CLASS-324-181	c09	N71-24717	US-PATENT-CLASS-325-186	c03	N78-32140
US-PATENT-CLASS-324-186	c09	N72-25257	US-PATENT-CLASS-325-187	c33	N78-32340
US-PATENT-CLASS-324-186	c52	N74-12778	US-PATENT-CLASS-325-302	c07	N72-25173
US-PATENT-CLASS-324-207	c35	N78-32396	US-PATENT-CLASS-325-304	c32	N76-14321
US-PATENT-CLASS-324-249	c35	N78-32397	US-PATENT-CLASS-325-305	c07	N71-10775
US-PATENT-CLASS-325-4	c07	N71-16088	US-PATENT-CLASS-325-305	c10	N71-20841
US-PATENT-CLASS-325-4	c07	N71-19773	US-PATENT-CLASS-325-305	c07	N71-23098
US-PATENT-CLASS-325-4	c07	N71-24621	US-PATENT-CLASS-325-306	c32	N76-14321
US-PATENT-CLASS-325-4	c07	N72-11149	US-PATENT-CLASS-325-320	c33	N74-12887
US-PATENT-CLASS-325-4	c07	N72-12080	US-PATENT-CLASS-325-320	c32	N74-20809
US-PATENT-CLASS-325-4	c07	N72-20140	US-PATENT-CLASS-325-320	c32	N74-20811
US-PATENT-CLASS-325-4	c07	N72-25171	US-PATENT-CLASS-325-320	c33	N74-27705
US-PATENT-CLASS-325-4	c07	N73-20174	US-PATENT-CLASS-325-321	c07	N72-20140
US-PATENT-CLASS-325-4	c15	N75-13007	US-PATENT-CLASS-325-321	c32	N74-20810
US-PATENT-CLASS-325-4	c32	N75-26195	US-PATENT-CLASS-325-321	c32	N76-16249
US-PATENT-CLASS-325-4	c32	N77-20289	US-PATENT-CLASS-325-323	c32	N77-10392
US-PATENT-CLASS-325-4	c32	N79-11265	US-PATENT-CLASS-325-325	c07	N71-24613
US-PATENT-CLASS-325-5	c07	N73-20174	US-PATENT-CLASS-325-325	c07	N72-25173
US-PATENT-CLASS-325-7	c07	N73-20174	US-PATENT-CLASS-325-325	c07	N73-13149
US-PATENT-CLASS-325-8	c07	N73-20174	US-PATENT-CLASS-325-346	c10	N73-16205
US-PATENT-CLASS-325-9	c07	N73-20174	US-PATENT-CLASS-325-346	c32	N74-30523
US-PATENT-CLASS-325-10	c07	N72-12081	US-PATENT-CLASS-325-346	c32	N77-24331
US-PATENT-CLASS-325-12	c07	N73-20174	US-PATENT-CLASS-325-347	c07	N71-33696
US-PATENT-CLASS-325-13	c07	N72-12081	US-PATENT-CLASS-325-348	c07	N71-33696
US-PATENT-CLASS-325-14	c17	N76-21250	US-PATENT-CLASS-325-349	c32	N77-10392
US-PATENT-CLASS-325-16	c07	N71-27056	US-PATENT-CLASS-325-363	c07	N71-11267
US-PATENT-CLASS-325-17	c07	N73-20174	US-PATENT-CLASS-325-363	c14	N71-26774
US-PATENT-CLASS-325-23	c07	N71-27056	US-PATENT-CLASS-325-363	c14	N72-28437
US-PATENT-CLASS-325-29	c09	N72-22202	US-PATENT-CLASS-325-363	c10	N73-25241
US-PATENT-CLASS-325-30	c32	N74-26654	US-PATENT-CLASS-325-369	c07	N71-27056
US-PATENT-CLASS-325-30	c32	N75-24981	US-PATENT-CLASS-325-372	c32	N76-14321
US-PATENT-CLASS-325-30	c32	N77-30308	US-PATENT-CLASS-325-373	c07	N72-33146
US-PATENT-CLASS-325-31	c07	N71-20791	US-PATENT-CLASS-325-419	c10	N73-16205
US-PATENT-CLASS-325-38	c07	N72-20140	US-PATENT-CLASS-325-419	c07	N73-28012
US-PATENT-CLASS-325-38	c07	N72-25173	US-PATENT-CLASS-325-419	c32	N74-20810
US-PATENT-CLASS-325-38B	c35	N74-17885	US-PATENT-CLASS-325-419	c32	N74-20811
US-PATENT-CLASS-325-39	c07	N72-11149	US-PATENT-CLASS-325-420	c07	N73-30113
US-PATENT-CLASS-325-40	c07	N73-26118	US-PATENT-CLASS-325-422	c07	N73-30113
US-PATENT-CLASS-325-41	c10	N71-26577	US-PATENT-CLASS-325-423	c32	N74-20809
US-PATENT-CLASS-325-41	c32	N77-12240	US-PATENT-CLASS-325-445	c07	N72-20141
US-PATENT-CLASS-325-41	c32	N79-10263	US-PATENT-CLASS-325-446	c09	N69-24324
US-PATENT-CLASS-325-42	c07	N71-11266	US-PATENT-CLASS-325-473	c07	N71-33696
US-PATENT-CLASS-325-42	c32	N76-21366	US-PATENT-CLASS-325-473	c10	N73-12244
US-PATENT-CLASS-325-42	c32	N77-30308	US-PATENT-CLASS-325-473	c32	N77-30308
US-PATENT-CLASS-325-45	c07	N73-25160	US-PATENT-CLASS-325-476	c32	N77-10392
US-PATENT-CLASS-325-51	c07	N72-25173	US-PATENT-CLASS-325-478	c07	N71-33696
US-PATENT-CLASS-325-55	c07	N72-25173	US-PATENT-CLASS-325-480	c07	N71-33696
US-PATENT-CLASS-325-58	c07	N72-11149	US-PATENT-CLASS-325-480	c10	N73-12244
US-PATENT-CLASS-325-58	c07	N72-20140	US-PATENT-CLASS-325-482	c07	N71-33696
US-PATENT-CLASS-325-58	c07	N72-25173	US-PATENT-CLASS-325-492	c09	N72-17153
US-PATENT-CLASS-325-58	c32	N78-15323	US-PATENT-CLASS-325-492	c09	N72-22202
US-PATENT-CLASS-325-58	c32	N79-20296	US-PATENT-CLASS-328-1	c23	N71-16099
US-PATENT-CLASS-325-60	c08	N71-19763	US-PATENT-CLASS-328-1	c10	N71-19472
US-PATENT-CLASS-325-60	c07	N73-16121	US-PATENT-CLASS-328-1	c09	N72-22200
US-PATENT-CLASS-325-60	c32	N75-24981	US-PATENT-CLASS-328-16	c10	N72-20223
US-PATENT-CLASS-325-61	c07	N73-25160	US-PATENT-CLASS-328-20	c10	N72-20223
US-PATENT-CLASS-325-62	c08	N72-25208	US-PATENT-CLASS-328-24	c09	N72-33204
US-PATENT-CLASS-325-62	c44	N74-19870	US-PATENT-CLASS-328-37	c08	N71-12503
US-PATENT-CLASS-325-63	c10	N71-19467	US-PATENT-CLASS-328-37	c10	N73-20254
US-PATENT-CLASS-325-63	c07	N73-20174	US-PATENT-CLASS-328-37	c33	N76-14373
US-PATENT-CLASS-325-63	c32	N78-15323	US-PATENT-CLASS-328-38	c10	N72-20223
US-PATENT-CLASS-325-63	c32	N79-20296	US-PATENT-CLASS-328-38	c33	N77-24375
US-PATENT-CLASS-325-64	c07	N72-25173	US-PATENT-CLASS-328-39	c33	N77-24375
US-PATENT-CLASS-325-65	c07	N70-41331	US-PATENT-CLASS-328-41	c33	N75-31330
US-PATENT-CLASS-325-65	c07	N70-41372	US-PATENT-CLASS-328-42	c08	N71-19432
US-PATENT-CLASS-325-65	c07	N71-11284	US-PATENT-CLASS-328-44	c08	N71-29034
US-PATENT-CLASS-325-65	c32	N77-30308	US-PATENT-CLASS-328-48	c14	N73-30386
US-PATENT-CLASS-325-66	c17	N78-17140	US-PATENT-CLASS-328-48	c33	N74-10223
US-PATENT-CLASS-325-67	c07	N71-26292	US-PATENT-CLASS-328-48	c33	N77-24375
US-PATENT-CLASS-325-67	c10	N73-25241	US-PATENT-CLASS-328-49	c10	N71-27137
US-PATENT-CLASS-325-67	c35	N75-21582	US-PATENT-CLASS-328-58	c08	N71-29138
US-PATENT-CLASS-325-67	c32	N79-11265	US-PATENT-CLASS-328-58	c33	N74-32711
US-PATENT-CLASS-325-113	c07	N71-24840	US-PATENT-CLASS-328-58	c33	N75-18479
US-PATENT-CLASS-325-113	c07	N73-25160	US-PATENT-CLASS-328-59	c33	N75-19515
US-PATENT-CLASS-325-113	c52	N74-26625	US-PATENT-CLASS-328-61	c09	N71-23525

NUMBER INDEX

US-PATENT-CLASS-328-61	c10	N73-20254	US-PATENT-CLASS-329-166	c33	N75-19520
US-PATENT-CLASS-328-61	c35	N75-30504	US-PATENT-CLASS-329-166	c33	N75-25041
US-PATENT-CLASS-328-62	c35	N75-30504	US-PATENT-CLASS-329-204	c33	N75-19520
US-PATENT-CLASS-328-63	c33	N76-14371	US-PATENT-CLASS-329-204	c33	N75-25041
US-PATENT-CLASS-328-63	c33	N77-24375	US-PATENT-CLASS-329-205	c33	N77-21314
US-PATENT-CLASS-328-67	c10	N71-28960	US-PATENT-CLASS-330-2	c09	N69-39986
US-PATENT-CLASS-328-92	c10	N71-28860	US-PATENT-CLASS-330-2	c09	N72-25250
US-PATENT-CLASS-328-104	c08	N72-22162	US-PATENT-CLASS-330-2	c33	N78-10375
US-PATENT-CLASS-328-104	c10	N73-13235	US-PATENT-CLASS-330-4	c16	N71-15550
US-PATENT-CLASS-328-106	c09	N72-22201	US-PATENT-CLASS-330-4	c16	N71-24831
US-PATENT-CLASS-328-110	c09	N71-12519	US-PATENT-CLASS-330-4	c16	N72-28521
US-PATENT-CLASS-328-111	c60	N77-12721	US-PATENT-CLASS-330-4	c36	N75-15029
US-PATENT-CLASS-328-115	c33	N75-18479	US-PATENT-CLASS-330-4	c36	N76-31512
US-PATENT-CLASS-328-116	c09	N69-39885	US-PATENT-CLASS-330-4	c36	N78-18410
US-PATENT-CLASS-328-120	c09	N71-27016	US-PATENT-CLASS-330-4.3	c16	N73-32391
US-PATENT-CLASS-328-123	c60	N74-12888	US-PATENT-CLASS-330-4.3	c36	N75-19655
US-PATENT-CLASS-328-129	c14	N73-30386	US-PATENT-CLASS-330-4.3	c36	N75-27364
US-PATENT-CLASS-328-133	c09	N71-24596	US-PATENT-CLASS-330-4.3	c36	N75-32441
US-PATENT-CLASS-328-133	c10	N72-20224	US-PATENT-CLASS-330-4.3	c36	N76-29575
US-PATENT-CLASS-328-133	c33	N75-26243	US-PATENT-CLASS-330-4.3	c36	N77-25502
US-PATENT-CLASS-328-133	c33	N77-13315	US-PATENT-CLASS-330-4.3	c73	N78-19920
US-PATENT-CLASS-328-133	c33	N79-11313	US-PATENT-CLASS-330-4.5	c09	N72-25258
US-PATENT-CLASS-328-134	c08	N71-18692	US-PATENT-CLASS-330-4.9	c33	N74-32660
US-PATENT-CLASS-328-134	c14	N73-30386	US-PATENT-CLASS-330-5	c33	N75-27251
US-PATENT-CLASS-328-134	c33	N76-16331	US-PATENT-CLASS-330-5.5	c71	N77-26919
US-PATENT-CLASS-328-136	c09	N72-25257	US-PATENT-CLASS-330-6	c35	N75-13213
US-PATENT-CLASS-328-140	c09	N72-25257	US-PATENT-CLASS-330-9	c33	N74-14939
US-PATENT-CLASS-328-142	c09	N72-21245	US-PATENT-CLASS-330-10	c33	N74-14939
US-PATENT-CLASS-328-145	c09	N72-23173	US-PATENT-CLASS-330-11	c09	N71-13531
US-PATENT-CLASS-328-145	c32	N76-14321	US-PATENT-CLASS-330-11	c10	N71-33129
US-PATENT-CLASS-328-145	c33	N78-32339	US-PATENT-CLASS-330-11	c09	N72-17156
US-PATENT-CLASS-328-150	c33	N78-18308	US-PATENT-CLASS-330-12	c10	N72-33230
US-PATENT-CLASS-328-151	c09	N72-22200	US-PATENT-CLASS-330-13	c10	N71-26415
US-PATENT-CLASS-328-151	c33	N75-18479	US-PATENT-CLASS-330-13	c33	N75-30428
US-PATENT-CLASS-328-154	c08	N72-22162	US-PATENT-CLASS-330-14	c09	N70-35440
US-PATENT-CLASS-328-154	c10	N73-13235	US-PATENT-CLASS-330-14	c33	N77-14335
US-PATENT-CLASS-328-154	c33	N74-22814	US-PATENT-CLASS-330-16	c10	N71-33129
US-PATENT-CLASS-328-155	c10	N72-16172	US-PATENT-CLASS-330-18	c09	N72-17155
US-PATENT-CLASS-328-155	c09	N72-33204	US-PATENT-CLASS-330-18	c33	N75-30428
US-PATENT-CLASS-328-155	c33	N74-17927	US-PATENT-CLASS-330-20	c09	N73-20232
US-PATENT-CLASS-328-155	c17	N76-22245	US-PATENT-CLASS-330-22	c09	N71-10798
US-PATENT-CLASS-328-160	c32	N74-19788	US-PATENT-CLASS-330-22	c09	N73-20232
US-PATENT-CLASS-328-161	c33	N77-17354	US-PATENT-CLASS-330-24	c10	N71-33129
US-PATENT-CLASS-328-163	c33	N79-10338	US-PATENT-CLASS-330-24	c33	N75-30429
US-PATENT-CLASS-328-164	c07	N71-33696	US-PATENT-CLASS-330-26	c10	N72-17172
US-PATENT-CLASS-328-165	c09	N71-24806	US-PATENT-CLASS-330-27R	c10	N72-31273
US-PATENT-CLASS-328-165	c07	N71-33696	US-PATENT-CLASS-330-28	c33	N74-21851
US-PATENT-CLASS-328-166	c10	N72-20223	US-PATENT-CLASS-330-28	c33	N77-14335
US-PATENT-CLASS-328-167	c10	N71-22986	US-PATENT-CLASS-330-29	c09	N69-24330
US-PATENT-CLASS-328-167	c08	N71-29034	US-PATENT-CLASS-330-29	c10	N72-28241
US-PATENT-CLASS-328-167	c10	N72-17171	US-PATENT-CLASS-330-30	c09	N71-19466
US-PATENT-CLASS-328-167	c09	N72-21245	US-PATENT-CLASS-330-30	c09	N71-19516
US-PATENT-CLASS-328-167	c09	N73-20231	US-PATENT-CLASS-330-30	c09	N71-27016
US-PATENT-CLASS-328-167	c08	N73-26175	US-PATENT-CLASS-330-30D	c10	N72-20221
US-PATENT-CLASS-328-168	c32	N74-19788	US-PATENT-CLASS-330-30D	c09	N73-20232
US-PATENT-CLASS-328-171	c10	N71-24844	US-PATENT-CLASS-330-31	c10	N71-26331
US-PATENT-CLASS-328-172	c32	N74-19788	US-PATENT-CLASS-330-31	c10	N72-17172
US-PATENT-CLASS-328-172	c33	N78-17294	US-PATENT-CLASS-330-35	c09	N72-17156
US-PATENT-CLASS-328-186	c09	N72-17157	US-PATENT-CLASS-330-35	c09	N73-20232
US-PATENT-CLASS-328-187	c10	N73-20254	US-PATENT-CLASS-330-35	c33	N74-14939
US-PATENT-CLASS-328-189	c14	N72-27408	US-PATENT-CLASS-330-40	c07	N71-28430
US-PATENT-CLASS-328-190	c33	N76-14371	US-PATENT-CLASS-330-40	c09	N72-17155
US-PATENT-CLASS-328-207	c09	N71-28468	US-PATENT-CLASS-330-40	c09	N73-20232
US-PATENT-CLASS-328-207	c10	N71-28860	US-PATENT-CLASS-330-40	c33	N75-30428
US-PATENT-CLASS-328-207	c09	N71-29139	US-PATENT-CLASS-330-43	c33	N79-10339
US-PATENT-CLASS-328-207	c10	N72-20221	US-PATENT-CLASS-330-49	c14	N70-35220
US-PATENT-CLASS-328-233	c10	N71-22962	US-PATENT-CLASS-330-51	c10	N71-28859
US-PATENT-CLASS-328-233	c75	N75-13625	US-PATENT-CLASS-330-52	c71	N78-14867
US-PATENT-CLASS-328-233	c37	N78-17386	US-PATENT-CLASS-330-53	c33	N74-32660
US-PATENT-CLASS-329-50	c33	N74-17930	US-PATENT-CLASS-330-59	c09	N72-25250
US-PATENT-CLASS-329-104	c07	N71-11282	US-PATENT-CLASS-330-59	c33	N74-21851
US-PATENT-CLASS-329-104	c33	N74-12887	US-PATENT-CLASS-330-59	c33	N77-14335
US-PATENT-CLASS-329-104	c32	N77-24331	US-PATENT-CLASS-330-61	c09	N71-23097
US-PATENT-CLASS-329-119	c33	N77-21314	US-PATENT-CLASS-330-63	c33	N75-30428
US-PATENT-CLASS-329-120	c07	N73-30113	US-PATENT-CLASS-330-69	c33	N74-32712
US-PATENT-CLASS-329-122	c10	N71-19469	US-PATENT-CLASS-330-69	c33	N75-19518
US-PATENT-CLASS-329-122	c07	N73-28012	US-PATENT-CLASS-330-70CR	c10	N73-21711
US-PATENT-CLASS-329-122	c33	N74-12887	US-PATENT-CLASS-330-70R	c09	N72-12245
US-PATENT-CLASS-329-122	c32	N74-20811	US-PATENT-CLASS-330-80T	c09	N73-20232
US-PATENT-CLASS-329-122	c33	N77-14334	US-PATENT-CLASS-330-85	c09	N72-21245
US-PATENT-CLASS-329-122	c32	N77-24331	US-PATENT-CLASS-330-86	c09	N73-20231
US-PATENT-CLASS-329-122	c32	N79-14267	US-PATENT-CLASS-330-86	c33	N75-19518
US-PATENT-CLASS-329-124	c33	N77-14334	US-PATENT-CLASS-330-94	c10	N72-17172
US-PATENT-CLASS-329-124	c33	N78-32338	US-PATENT-CLASS-330-103	c32	N74-22096
US-PATENT-CLASS-329-126	c33	N74-12887	US-PATENT-CLASS-330-107	c10	N72-12256
US-PATENT-CLASS-329-140	c07	N71-24583	US-PATENT-CLASS-330-107	c10	N72-17172
US-PATENT-CLASS-329-145	c07	N71-33696	US-PATENT-CLASS-330-109	c10	N72-12256
US-PATENT-CLASS-329-161	c07	N72-20141	US-PATENT-CLASS-330-109	c10	N72-17171
US-PATENT-CLASS-329-162	c07	N72-20141	US-PATENT-CLASS-330-109	c10	N72-17172

NUMBER INDEX

US-PATENT-CLASS-330-109	c09	N73-20231	US-PATENT-CLASS-331-94.5PE	c36	N77-19416
US-PATENT-CLASS-330-124	c07	N71-28430	US-PATENT-CLASS-331-94.5PE	c36	N78-27402
US-PATENT-CLASS-330-176	c10	N72-17171	US-PATENT-CLASS-331-94.5PE	c72	N79-13826
US-PATENT-CLASS-330-200	c07	N71-28430	US-PATENT-CLASS-331-94.5S	c36	N74-15145
US-PATENT-CLASS-330-207A	c33	N75-30429	US-PATENT-CLASS-331-94.5S	c36	N77-25499
US-PATENT-CLASS-331-DIG.1	c36	N75-30524	US-PATENT-CLASS-331-94.5T	c35	N77-27366
US-PATENT-CLASS-331-1A	c33	N74-10194	US-PATENT-CLASS-331-94.5T	c36	N78-17366
US-PATENT-CLASS-331-1A	c33	N75-25040	US-PATENT-CLASS-331-94.5T	c36	N79-21333
US-PATENT-CLASS-331-1A	c33	N79-11313	US-PATENT-CLASS-331-94-5G	c36	N75-32441
US-PATENT-CLASS-331-3	c35	N76-15436	US-PATENT-CLASS-331-107	c09	N71-18721
US-PATENT-CLASS-331-4	c09	N69-21543	US-PATENT-CLASS-331-107	c26	N72-21701
US-PATENT-CLASS-331-4	c33	N74-10194	US-PATENT-CLASS-331-107A	c71	N77-26919
US-PATENT-CLASS-331-4	c33	N78-32338	US-PATENT-CLASS-331-107G	c26	N72-25679
US-PATENT-CLASS-331-7	c07	N72-11150	US-PATENT-CLASS-331-107G	c09	N73-15235
US-PATENT-CLASS-331-10	c07	N72-11150	US-PATENT-CLASS-331-108A	c33	N74-20862
US-PATENT-CLASS-331-12	c33	N78-32338	US-PATENT-CLASS-331-109	c10	N71-27271
US-PATENT-CLASS-331-14	c09	N72-21247	US-PATENT-CLASS-331-109	c33	N74-26732
US-PATENT-CLASS-331-14	c33	N74-10194	US-PATENT-CLASS-331-111	c10	N71-23669
US-PATENT-CLASS-331-14	c33	N79-11313	US-PATENT-CLASS-331-111	c09	N72-21247
US-PATENT-CLASS-331-17	c10	N71-20852	US-PATENT-CLASS-331-113	c09	N70-38995
US-PATENT-CLASS-331-17	c10	N73-27171	US-PATENT-CLASS-331-113	c10	N71-19418
US-PATENT-CLASS-331-17	c33	N74-10194	US-PATENT-CLASS-331-113	c09	N71-19470
US-PATENT-CLASS-331-18	c10	N71-26374	US-PATENT-CLASS-331-113	c10	N71-25882
US-PATENT-CLASS-331-18	c33	N74-10194	US-PATENT-CLASS-331-113	c10	N71-25950
US-PATENT-CLASS-331-18	c33	N75-25040	US-PATENT-CLASS-331-113	c09	N71-28810
US-PATENT-CLASS-331-23	c09	N72-21247	US-PATENT-CLASS-331-113A	c09	N72-25253
US-PATENT-CLASS-331-23	c33	N77-14334	US-PATENT-CLASS-331-113A	c09	N72-25254
US-PATENT-CLASS-331-23	c33	N79-11313	US-PATENT-CLASS-331-113A	c33	N74-11049
US-PATENT-CLASS-331-25	c10	N73-27171	US-PATENT-CLASS-331-114	c33	N77-17351
US-PATENT-CLASS-331-25	c33	N75-25040	US-PATENT-CLASS-331-115	c10	N72-33230
US-PATENT-CLASS-331-25	c33	N79-11313	US-PATENT-CLASS-331-115	c33	N74-20862
US-PATENT-CLASS-331-30	c09	N72-21247	US-PATENT-CLASS-331-116R	c10	N72-33230
US-PATENT-CLASS-331-34	c07	N72-11150	US-PATENT-CLASS-331-116R	c33	N74-20862
US-PATENT-CLASS-331-36C	c33	N77-14334	US-PATENT-CLASS-331-117	c10	N71-27271
US-PATENT-CLASS-331-44	c14	N72-27408	US-PATENT-CLASS-331-117	c09	N72-22203
US-PATENT-CLASS-331-45	c10	N73-16206	US-PATENT-CLASS-331-117R	c33	N74-26732
US-PATENT-CLASS-331-62	c33	N74-11049	US-PATENT-CLASS-331-135	c10	N73-32145
US-PATENT-CLASS-331-64	c33	N78-32338	US-PATENT-CLASS-331-159	c33	N74-20862
US-PATENT-CLASS-331-65	c35	N75-29380	US-PATENT-CLASS-331-177	c10	N71-27271
US-PATENT-CLASS-331-66	c07	N72-11150	US-PATENT-CLASS-331-177R	c09	N73-15235
US-PATENT-CLASS-331-78	c09	N71-23598	US-PATENT-CLASS-331-177V	c33	N77-17351
US-PATENT-CLASS-331-78	c08	N73-12175	US-PATENT-CLASS-331-178	c33	N74-10194
US-PATENT-CLASS-331-78	c33	N75-19515	US-PATENT-CLASS-331-183	c33	N74-26732
US-PATENT-CLASS-331-90	c09	N73-15235	US-PATENT-CLASS-332-1	c10	N71-23084
US-PATENT-CLASS-331-94	c16	N70-41578	US-PATENT-CLASS-332-2	c35	N75-19614
US-PATENT-CLASS-331-94	c16	N72-28521	US-PATENT-CLASS-332-7.5	c36	N75-15029
US-PATENT-CLASS-331-94	c16	N73-13489	US-PATENT-CLASS-332-7.5	c36	N78-18410
US-PATENT-CLASS-331-94	c35	N76-15436	US-PATENT-CLASS-332-7.51	c16	N72-25485
US-PATENT-CLASS-331-94	c36	N76-31512	US-PATENT-CLASS-332-7.51	c07	N73-26119
US-PATENT-CLASS-331-94	c36	N79-18362	US-PATENT-CLASS-332-7.51	c33	N74-20859
US-PATENT-CLASS-331-94.5	c16	N71-18614	US-PATENT-CLASS-332-9	c36	N76-18427
US-PATENT-CLASS-331-94.5	c16	N71-28832	US-PATENT-CLASS-332-9R	c07	N71-12390
US-PATENT-CLASS-331-94.5	c23	N71-26722	US-PATENT-CLASS-332-10	c08	N71-29138
US-PATENT-CLASS-331-94.5	c15	N71-27135	US-PATENT-CLASS-332-11D	c08	N71-29138
US-PATENT-CLASS-331-94.5	c23	N71-29125	US-PATENT-CLASS-332-16	c35	N74-17885
US-PATENT-CLASS-331-94.5	c16	N71-33410	US-PATENT-CLASS-332-18	c33	N77-21314
US-PATENT-CLASS-331-94.5	c16	N72-12440	US-PATENT-CLASS-332-19	c33	N77-17351
US-PATENT-CLASS-331-94.5	c25	N72-24753	US-PATENT-CLASS-332-21	c10	N71-23544
US-PATENT-CLASS-331-94.5	c16	N72-25485	US-PATENT-CLASS-332-21	c08	N72-25208
US-PATENT-CLASS-331-94.5	c07	N73-26119	US-PATENT-CLASS-332-22	c32	N77-18292
US-PATENT-CLASS-331-94.5	c09	N73-32111	US-PATENT-CLASS-332-23R	c32	N77-18292
US-PATENT-CLASS-331-94.5	c16	N73-32391	US-PATENT-CLASS-332-29	c07	N71-28429
US-PATENT-CLASS-331-94.5	c36	N76-18427	US-PATENT-CLASS-332-30	c10	N71-27271
US-PATENT-CLASS-331-94.5A	c16	N73-33397	US-PATENT-CLASS-332-30	c07	N71-28429
US-PATENT-CLASS-331-94.5A	c36	N75-27364	US-PATENT-CLASS-332-30V	c33	N77-21314
US-PATENT-CLASS-331-94.5C	c36	N75-31427	US-PATENT-CLASS-332-30V	c33	N77-18334
US-PATENT-CLASS-331-94.5C	c36	N76-18428	US-PATENT-CLASS-332-31	c33	N77-17351
US-PATENT-CLASS-331-94.5C	c36	N76-24553	US-PATENT-CLASS-332-31	c08	N71-12500
US-PATENT-CLASS-331-94.5C	c36	N76-29575	US-PATENT-CLASS-332-47	c26	N72-21701
US-PATENT-CLASS-331-94.5D	c33	N74-20859	US-PATENT-CLASS-332-51W	c33	N75-19520
US-PATENT-CLASS-331-94.5D	c36	N77-19416	US-PATENT-CLASS-332-52	c07	N72-20141
US-PATENT-CLASS-331-94.5D	c36	N77-25502	US-PATENT-CLASS-333-6	c33	N77-21314
US-PATENT-CLASS-331-94.5D	c35	N77-27366	US-PATENT-CLASS-333-7	c07	N71-33606
US-PATENT-CLASS-331-94.5G	c36	N75-31426	US-PATENT-CLASS-333-7	c07	N71-33606
US-PATENT-CLASS-331-94.5G	c36	N77-19416	US-PATENT-CLASS-333-8	c07	N72-25170
US-PATENT-CLASS-331-94.5G	c36	N78-17366	US-PATENT-CLASS-333-14	c07	N69-24334
US-PATENT-CLASS-331-94.5G	c36	N78-27402	US-PATENT-CLASS-333-16	c32	N74-19788
US-PATENT-CLASS-331-94.5G	c36	N79-18307	US-PATENT-CLASS-333-17	c33	N74-17927
US-PATENT-CLASS-331-94.5G	c36	N79-27333	US-PATENT-CLASS-333-17R	c44	N74-19870
US-PATENT-CLASS-331-94.5K	c36	N74-15145	US-PATENT-CLASS-333-18	c33	N78-32340
US-PATENT-CLASS-331-94.5L	c72	N79-13826	US-PATENT-CLASS-333-18	c33	N74-17927
US-PATENT-CLASS-331-94.5L	c36	N75-19654	US-PATENT-CLASS-333-21	c32	N76-21366
US-PATENT-CLASS-331-94.5P	c36	N75-19655	US-PATENT-CLASS-333-21A	c07	N71-10676
US-PATENT-CLASS-331-94.5P	c36	N75-31426	US-PATENT-CLASS-333-21B	c07	N71-33606
US-PATENT-CLASS-331-94.5P	c36	N77-25502	US-PATENT-CLASS-333-24R	c33	N75-30430
US-PATENT-CLASS-331-94.5P	c36	N78-27402	US-PATENT-CLASS-333-30	c09	N72-29172
US-PATENT-CLASS-331-94.5P	c72	N79-13826	US-PATENT-CLASS-333-70CR	c10	N71-25900
US-PATENT-CLASS-331-94.5P	c36	N79-18307	US-PATENT-CLASS-333-70R	c10	N72-17171
US-PATENT-CLASS-331-94.5PE	c36	N75-32441		c32	N77-18307

NUMBER INDEX

US-PATENT-CLASS-333-72	c10	N71-25900	US-PATENT-CLASS-339-17H	c37	N76-27567
US-PATENT-CLASS-333-72	c71	N77-26919	US-PATENT-CLASS-339-17R	c15	N71-29133
US-PATENT-CLASS-333-73	c07	N69-24323	US-PATENT-CLASS-339-18C	c37	N76-27567
US-PATENT-CLASS-333-73	c09	N71-23573	US-PATENT-CLASS-339-45M	c15	N72-25450
US-PATENT-CLASS-333-73R	c09	N73-26195	US-PATENT-CLASS-339-46	c15	N72-17455
US-PATENT-CLASS-333-73S	c09	N73-26195	US-PATENT-CLASS-339-75MP	c09	N72-28225
US-PATENT-CLASS-333-73W	c07	N72-20141	US-PATENT-CLASS-339-91	c09	N69-21927
US-PATENT-CLASS-333-75	c32	N77-18307	US-PATENT-CLASS-339-91B	c15	N72-25450
US-PATENT-CLASS-333-76	c32	N77-18307	US-PATENT-CLASS-339-94M	c09	N72-28225
US-PATENT-CLASS-333-79	c10	N70-41964	US-PATENT-CLASS-339-95	c09	N69-39734
US-PATENT-CLASS-333-79	c09	N72-25256	US-PATENT-CLASS-339-143C	c33	N76-16332
US-PATENT-CLASS-333-80	c09	N71-12517	US-PATENT-CLASS-339-143R	c09	N72-25256
US-PATENT-CLASS-333-80	c09	N72-21245	US-PATENT-CLASS-339-147R	c09	N72-25256
US-PATENT-CLASS-333-80R	c33	N74-32712	US-PATENT-CLASS-339-150	c09	N69-21470
US-PATENT-CLASS-333-80T	c10	N72-33230	US-PATENT-CLASS-339-176	c09	N70-34596
US-PATENT-CLASS-333-81	c07	N71-29065	US-PATENT-CLASS-339-176	c09	N70-36494
US-PATENT-CLASS-333-81B	c14	N73-13420	US-PATENT-CLASS-339-176M	c15	N72-17455
US-PATENT-CLASS-333-81R	c07	N72-25170	US-PATENT-CLASS-339-176MP	c09	N72-28225
US-PATENT-CLASS-333-81R	c33	N78-32340	US-PATENT-CLASS-339-177	c09	N71-20851
US-PATENT-CLASS-333-82A	c09	N73-26195	US-PATENT-CLASS-339-198R	c33	N76-16332
US-PATENT-CLASS-333-82B	c32	N77-18307	US-PATENT-CLASS-339-218M	c09	N72-28225
US-PATENT-CLASS-333-83	c09	N71-24841	US-PATENT-CLASS-339-242	c33	N76-16332
US-PATENT-CLASS-333-83BT	c33	N75-30430	US-PATENT-CLASS-339-252R	c52	N77-14738
US-PATENT-CLASS-333-83R	c36	N74-11313	US-PATENT-CLASS-339-275R	c33	N76-16332
US-PATENT-CLASS-333-84M	c09	N73-26195	US-PATENT-CLASS-339-275T	c09	N72-20200
US-PATENT-CLASS-333-95	c07	N71-27191	US-PATENT-CLASS-339-276T	c09	N72-20200
US-PATENT-CLASS-333-96	c09	N71-20445	US-PATENT-CLASS-339-278M	c15	N72-17455
US-PATENT-CLASS-333-96	c07	N71-27191	US-PATENT-CLASS-339-12R	c52	N77-25772
US-PATENT-CLASS-333-97	c07	N69-27462	US-PATENT-CLASS-340-5C	c14	N73-27379
US-PATENT-CLASS-333-97R	c36	N74-11313	US-PATENT-CLASS-340-5H	c32	N77-21267
US-PATENT-CLASS-333-98	c09	N71-23548	US-PATENT-CLASS-340-5R	c35	N74-16135
US-PATENT-CLASS-333-98	c09	N71-24808	US-PATENT-CLASS-340-8R	c35	N74-16135
US-PATENT-CLASS-333-98P	c07	N72-25170	US-PATENT-CLASS-340-12R	c35	N74-16135
US-PATENT-CLASS-333-98P	c09	N72-29172	US-PATENT-CLASS-340-15.5GC	c14	N73-26432
US-PATENT-CLASS-333-98R	c07	N72-25170	US-PATENT-CLASS-340-25	c14	N73-16483
US-PATENT-CLASS-333-98R	c09	N72-29172	US-PATENT-CLASS-340-26	c21	N72-22619
US-PATENT-CLASS-333-98R	c14	N73-13420	US-PATENT-CLASS-340-27AT	c21	N73-14692
US-PATENT-CLASS-333-98R	c33	N75-30430	US-PATENT-CLASS-340-27NA	c21	N73-13643
US-PATENT-CLASS-333-98S	c07	N72-25170	US-PATENT-CLASS-340-27R	c14	N73-16483
US-PATENT-CLASS-335-205	c09	N72-20199	US-PATENT-CLASS-340-27R	c14	N73-20474
US-PATENT-CLASS-335-216	c16	N71-28554	US-PATENT-CLASS-340-27SS	c35	N78-14364
US-PATENT-CLASS-335-216	c23	N71-29049	US-PATENT-CLASS-340-33	c21	N73-13643
US-PATENT-CLASS-335-216	c26	N73-32571	US-PATENT-CLASS-340-38P	c66	N76-19888
US-PATENT-CLASS-335-216	c20	N75-24837	US-PATENT-CLASS-340-57	c14	N71-15620
US-PATENT-CLASS-335-216	c33	N79-21264	US-PATENT-CLASS-340-97	c21	N73-13643
US-PATENT-CLASS-335-296	c09	N73-30185	US-PATENT-CLASS-340-146.1	c09	N71-18843
US-PATENT-CLASS-335-297	c09	N73-30185	US-PATENT-CLASS-340-146.1	c08	N71-22749
US-PATENT-CLASS-335-300	c09	N70-41929	US-PATENT-CLASS-340-146.1	c10	N71-26103
US-PATENT-CLASS-336-DIG.1	c26	N73-26752	US-PATENT-CLASS-340-146.1	c08	N72-27255
US-PATENT-CLASS-336-DIG.1	c33	N79-17133	US-PATENT-CLASS-340-146.1	c08	N72-22167
US-PATENT-CLASS-336-60	c09	N72-27226	US-PATENT-CLASS-340-146.1	c08	N72-25207
US-PATENT-CLASS-336-178	c09	N72-17154	US-PATENT-CLASS-340-146.1	c07	N73-13149
US-PATENT-CLASS-336-198	c09	N72-27226	US-PATENT-CLASS-340-146.1AL	c08	N72-25210
US-PATENT-CLASS-336-200	c26	N73-26752	US-PATENT-CLASS-340-146.1AL	c08	N73-12175
US-PATENT-CLASS-336-210	c33	N74-17928	US-PATENT-CLASS-340-146.1AL	c32	N77-12240
US-PATENT-CLASS-336-220	c09	N72-27226	US-PATENT-CLASS-340-146.1AQ	c08	N73-12177
US-PATENT-CLASS-337-75	c15	N72-12409	US-PATENT-CLASS-340-146.1AQ	c32	N78-32598
US-PATENT-CLASS-337-114	c09	N71-29035	US-PATENT-CLASS-340-146.1AQ	c32	N77-12240
US-PATENT-CLASS-337-121	c09	N71-29035	US-PATENT-CLASS-340-146.1AV	c08	N73-12177
US-PATENT-CLASS-337-334	c37	N77-19458	US-PATENT-CLASS-340-146.1AV	c32	N77-12240
US-PATENT-CLASS-337-354	c15	N72-12409	US-PATENT-CLASS-340-146.1AX	c32	N79-10263
US-PATENT-CLASS-337-359	c15	N72-12409	US-PATENT-CLASS-340-146.1C	c07	N73-20176
US-PATENT-CLASS-338-2	c33	N75-31329	US-PATENT-CLASS-340-146.1E	c32	N79-10263
US-PATENT-CLASS-338-5	c32	N71-15974	US-PATENT-CLASS-340-146.2	c08	N71-12505
US-PATENT-CLASS-338-5	c52	N74-27864	US-PATENT-CLASS-340-146.2	c08	N71-23295
US-PATENT-CLASS-338-6	c35	N76-14430	US-PATENT-CLASS-340-146.3P	c43	N77-10584
US-PATENT-CLASS-338-6	c52	N76-29895	US-PATENT-CLASS-340-146.3Q	c43	N77-10584
US-PATENT-CLASS-338-13	c24	N75-30260	US-PATENT-CLASS-340-147	c09	N70-33182
US-PATENT-CLASS-338-25	c35	N77-21393	US-PATENT-CLASS-340-147	c09	N70-38998
US-PATENT-CLASS-338-28	c35	N77-20400	US-PATENT-CLASS-340-147C	c60	N76-14818
US-PATENT-CLASS-338-28	c35	N77-24454	US-PATENT-CLASS-340-147R	c07	N73-20176
US-PATENT-CLASS-338-32S	c33	N78-13320	US-PATENT-CLASS-340-147R	c60	N76-14818
US-PATENT-CLASS-338-36	c35	N78-17359	US-PATENT-CLASS-340-147SY	c17	N76-22245
US-PATENT-CLASS-338-64	c09	N71-21583	US-PATENT-CLASS-340-150	c10	N71-27272
US-PATENT-CLASS-338-75	c37	N75-13265	US-PATENT-CLASS-340-151	c33	N74-27862
US-PATENT-CLASS-338-82	c09	N71-20842	US-PATENT-CLASS-340-163	c07	N73-20176
US-PATENT-CLASS-338-89	c35	N74-32877	US-PATENT-CLASS-340-164	c10	N71-27272
US-PATENT-CLASS-338-97	c37	N75-13265	US-PATENT-CLASS-340-166	c10	N71-27272
US-PATENT-CLASS-338-99	c35	N78-17359	US-PATENT-CLASS-340-166	c10	N73-32144
US-PATENT-CLASS-338-100	c35	N78-17359	US-PATENT-CLASS-340-167	c07	N72-25173
US-PATENT-CLASS-338-114	c52	N74-27864	US-PATENT-CLASS-340-171	c09	N72-22202
US-PATENT-CLASS-338-162	c37	N75-13265	US-PATENT-CLASS-340-171	c16	N73-16536
US-PATENT-CLASS-338-229	c35	N77-24454	US-PATENT-CLASS-340-172.5	c08	N69-21928
US-PATENT-CLASS-338-283	c24	N75-30260	US-PATENT-CLASS-340-172.5	c09	N69-24333
US-PATENT-CLASS-338-320	c33	N74-14935	US-PATENT-CLASS-340-172.5	c08	N71-12502
US-PATENT-CLASS-339-5	c15	N71-23049	US-PATENT-CLASS-340-172.5	c08	N71-12506
US-PATENT-CLASS-339-17	c14	N69-27431	US-PATENT-CLASS-340-172.5	c31	N71-15566
US-PATENT-CLASS-339-17	c15	N71-17685	US-PATENT-CLASS-340-172.5	c08	N71-19288
US-PATENT-CLASS-339-17	c09	N71-26133	US-PATENT-CLASS-340-172.5	c08	N71-22707

NUMBER INDEX

US-PATENT-CLASS-340-172.5	c08 N71-22710	US-PATENT-CLASS-340-285	c54 N78-32720
US-PATENT-CLASS-340-172.5	c07 N71-24624	US-PATENT-CLASS-340-309.1	c54 N78-32720
US-PATENT-CLASS-340-172.5	c08 N71-27255	US-PATENT-CLASS-340-324	c08 N71-12507
US-PATENT-CLASS-340-172.5	c07 N72-25172	US-PATENT-CLASS-340-324	c09 N71-33519
US-PATENT-CLASS-340-172.5	c08 N72-25207	US-PATENT-CLASS-340-324A	c09 N72-25248
US-PATENT-CLASS-340-172.5	c09 N72-25248	US-PATENT-CLASS-340-324AD	c33 N75-19517
US-PATENT-CLASS-340-172.5	c08 N73-13187	US-PATENT-CLASS-340-324R	c26 N72-25680
US-PATENT-CLASS-340-172.5	c08 N73-26176	US-PATENT-CLASS-340-332	c09 N72-25250
US-PATENT-CLASS-340-172.5	c60 N76-18800	US-PATENT-CLASS-340-336	c09 N71-33519
US-PATENT-CLASS-340-172.5	c60 N76-21914	US-PATENT-CLASS-340-347	c08 N70-35423
US-PATENT-CLASS-340-172.5	c60 N77-12721	US-PATENT-CLASS-340-347	c08 N70-40125
US-PATENT-CLASS-340-172.5	c60 N77-14751	US-PATENT-CLASS-340-347	c08 N71-12501
US-PATENT-CLASS-340-172.5	c60 N77-19760	US-PATENT-CLASS-340-347	c08 N71-18594
US-PATENT-CLASS-340-173	c10 N73-32144	US-PATENT-CLASS-340-347	c08 N71-19435
US-PATENT-CLASS-340-173.2	c08 N72-21198	US-PATENT-CLASS-340-347	c08 N71-19544
US-PATENT-CLASS-340-173CA	c33 N75-31331	US-PATENT-CLASS-340-347	c08 N71-19687
US-PATENT-CLASS-340-173CR	c60 N74-12888	US-PATENT-CLASS-340-347	c08 N71-24650
US-PATENT-CLASS-340-173LM	c60 N74-12888	US-PATENT-CLASS-340-347	c10 N71-25917
US-PATENT-CLASS-340-173LM	c60 N78-10709	US-PATENT-CLASS-340-347	c10 N71-26544
US-PATENT-CLASS-340-173LS	c08 N72-21198	US-PATENT-CLASS-340-347	c08 N73-28045
US-PATENT-CLASS-340-174	c36 N75-19652	US-PATENT-CLASS-340-347AD	c14 N71-28991
US-PATENT-CLASS-340-174	c08 N71-12504	US-PATENT-CLASS-340-347AD	c08 N72-21200
US-PATENT-CLASS-340-174	c09 N71-12515	US-PATENT-CLASS-340-347AD	c08 N72-22163
US-PATENT-CLASS-340-174	c08 N71-18595	US-PATENT-CLASS-340-347AD	c08 N72-22166
US-PATENT-CLASS-340-174	c08 N71-18694	US-PATENT-CLASS-340-347AD	c08 N72-31226
US-PATENT-CLASS-340-174	c10 N71-23033	US-PATENT-CLASS-340-347AD	c08 N73-20217
US-PATENT-CLASS-340-174	c10 N71-26418	US-PATENT-CLASS-340-347AD	c35 N74-17885
US-PATENT-CLASS-340-174	c10 N71-26439	US-PATENT-CLASS-340-347AD	c35 N74-32877
US-PATENT-CLASS-340-174	c08 N71-28925	US-PATENT-CLASS-340-347AD	c33 N76-18345
US-PATENT-CLASS-340-174	c10 N71-29135	US-PATENT-CLASS-340-347AD	c60 N77-32731
US-PATENT-CLASS-340-174.1	c08 N71-21042	US-PATENT-CLASS-340-347DA	c08 N71-27057
US-PATENT-CLASS-340-174.1	c07 N71-23001	US-PATENT-CLASS-340-347DA	c08 N72-20176
US-PATENT-CLASS-340-174.1	c08 N71-27210	US-PATENT-CLASS-340-347DA	c08 N72-25206
US-PATENT-CLASS-340-174.1L	c35 N74-11283	US-PATENT-CLASS-340-347DA	c08 N73-32081
US-PATENT-CLASS-340-174.1M	c36 N74-13205	US-PATENT-CLASS-340-347DD	c10 N71-33407
US-PATENT-CLASS-340-174.1M	c35 N78-29421	US-PATENT-CLASS-340-347DD	c08 N72-18184
US-PATENT-CLASS-340-174.1M	c35 N79-16246	US-PATENT-CLASS-340-347DD	c08 N72-20176
US-PATENT-CLASS-340-174.1R	c21 N73-13644	US-PATENT-CLASS-340-347DD	c08 N72-21197
US-PATENT-CLASS-340-174AG	c23 N72-17747	US-PATENT-CLASS-340-347DD	c08 N73-12176
US-PATENT-CLASS-340-174CS	c08 N72-21199	US-PATENT-CLASS-340-347DD	c60 N76-23850
US-PATENT-CLASS-340-174CT	c23 N72-17747	US-PATENT-CLASS-340-347DD	c32 N77-12239
US-PATENT-CLASS-340-174GA	c23 N72-17747	US-PATENT-CLASS-340-347DD	c60 N78-17691
US-PATENT-CLASS-340-174LC	c08 N72-21199	US-PATENT-CLASS-340-347DD	c60 N79-20751
US-PATENT-CLASS-340-174M	c08 N72-21199	US-PATENT-CLASS-340-347P	c60 N76-23850
US-PATENT-CLASS-340-174NA	c24 N75-13032	US-PATENT-CLASS-340-347P	c35 N77-30436
US-PATENT-CLASS-340-174SC	c23 N72-17747	US-PATENT-CLASS-340-347P	c08 N72-22165
US-PATENT-CLASS-340-174SR	c08 N72-21199	US-PATENT-CLASS-340-347SH	c33 N77-31804
US-PATENT-CLASS-340-174YC	c36 N78-13205	US-PATENT-CLASS-340-347SY	c62 N76-31946
US-PATENT-CLASS-340-174YC	c35 N78-29421	US-PATENT-CLASS-340-347SY	c35 N77-30436
US-PATENT-CLASS-340-177	c09 N72-17153	US-PATENT-CLASS-340-348	c08 N72-22167
US-PATENT-CLASS-340-182	c33 N74-27862	US-PATENT-CLASS-340-403	c10 N71-27272
US-PATENT-CLASS-340-183	c52 N74-26625	US-PATENT-CLASS-340-407	c71 N74-21014
US-PATENT-CLASS-340-189M	c17 N76-29347	US-PATENT-CLASS-340-412	c10 N71-24798
US-PATENT-CLASS-340-198	c14 N70-33179	US-PATENT-CLASS-340-415	c10 N73-32144
US-PATENT-CLASS-340-198	c07 N71-11298	US-PATENT-CLASS-340-418	c14 N73-16484
US-PATENT-CLASS-340-200	c33 N74-27862	US-PATENT-CLASS-340-650	c33 N79-18193
US-PATENT-CLASS-340-200	c33 N77-31404	US-PATENT-CLASS-340-664	c33 N79-18193
US-PATENT-CLASS-340-203	c09 N72-22202	US-PATENT-CLASS-343-DIG.2	c07 N72-24176
US-PATENT-CLASS-340-203	c52 N74-26625	US-PATENT-CLASS-343-DIG.2	c33 N74-20860
US-PATENT-CLASS-340-206	c17 N76-29347	US-PATENT-CLASS-343-DIG.3	c09 N72-12136
US-PATENT-CLASS-340-207	c07 N73-25160	US-PATENT-CLASS-343-5CM	c07 N72-21118
US-PATENT-CLASS-340-207P	c17 N76-22245	US-PATENT-CLASS-343-5CM	c32 N77-21267
US-PATENT-CLASS-340-207R	c52 N78-26625	US-PATENT-CLASS-343-5CM	c32 N77-32342
US-PATENT-CLASS-340-210	c03 N72-20031	US-PATENT-CLASS-343-5CM	c35 N79-10391
US-PATENT-CLASS-340-213	c10 N71-27272	US-PATENT-CLASS-343-5CM	c32 N79-14268
US-PATENT-CLASS-340-213.1	c10 N71-19417	US-PATENT-CLASS-343-5DP	c07 N72-11189
US-PATENT-CLASS-340-213R	c54 N78-32720	US-PATENT-CLASS-343-5DP	c09 N73-12211
US-PATENT-CLASS-340-223	c10 N73-32144	US-PATENT-CLASS-343-5DP	c32 N77-32342
US-PATENT-CLASS-340-224	c37 N77-19458	US-PATENT-CLASS-343-5GC	c32 N75-24982
US-PATENT-CLASS-340-227	c10 N71-16058	US-PATENT-CLASS-343-5MH	c32 N77-21267
US-PATENT-CLASS-340-227	c14 N71-27186	US-PATENT-CLASS-343-5W	c35 N79-10391
US-PATENT-CLASS-340-227R	c14 N72-25412	US-PATENT-CLASS-343-6	c30 N71-16090
US-PATENT-CLASS-340-228.2	c10 N72-17173	US-PATENT-CLASS-343-6.BR	c32 N77-20289
US-PATENT-CLASS-340-228S	c14 N73-16484	US-PATENT-CLASS-343-6.5	c21 N71-11766
US-PATENT-CLASS-340-233	c14 N71-25901	US-PATENT-CLASS-343-6.5	c10 N71-23099
US-PATENT-CLASS-340-235	c10 N71-26334	US-PATENT-CLASS-343-6.5R	c07 N72-12080
US-PATENT-CLASS-340-237S	c45 N76-17656	US-PATENT-CLASS-343-6.5R	c07 N72-21118
US-PATENT-CLASS-340-240	c09 N72-27227	US-PATENT-CLASS-343-6.5R	c07 N72-25171
US-PATENT-CLASS-340-242	c35 N75-19612	US-PATENT-CLASS-343-6.5R	c08 N72-25209
US-PATENT-CLASS-340-248	c10 N71-27338	US-PATENT-CLASS-343-6.5R	c07 N73-25161
US-PATENT-CLASS-340-258	c10 N72-28240	US-PATENT-CLASS-343-6.5R	c21 N73-30641
US-PATENT-CLASS-340-258R	c07 N73-25160	US-PATENT-CLASS-343-6.5R	c32 N74-12912
US-PATENT-CLASS-340-262	c54 N78-32720	US-PATENT-CLASS-343-6.5R	c32 N75-15854
US-PATENT-CLASS-340-271	c35 N77-30436	US-PATENT-CLASS-343-6.5R	c03 N75-30732
US-PATENT-CLASS-340-277	c10 N73-30205	US-PATENT-CLASS-343-6.5R	c32 N77-20289
US-PATENT-CLASS-340-279	c05 N72-16015	US-PATENT-CLASS-343-6.5SS	c32 N74-12912
US-PATENT-CLASS-340-279	c10 N73-30205	US-PATENT-CLASS-343-6.8R	c07 N72-12080
US-PATENT-CLASS-340-279	c54 N78-32720	US-PATENT-CLASS-343-6.8R	c07 N73-25161
US-PATENT-CLASS-340-285	c14 N71-25901	US-PATENT-CLASS-343-6.8R	c14 N73-25861

NUMBER INDEX

US-PATENT-CLASS-343-6R	c32	N79-10264	US-PATENT-CLASS-343-225	c17	N78-17140
US-PATENT-CLASS-343-7.4	c10	N72-22235	US-PATENT-CLASS-343-700MS	c32	N78-24391
US-PATENT-CLASS-343-7.4	c32	N79-13214	US-PATENT-CLASS-343-703	c09	N71-13521
US-PATENT-CLASS-343-7.5	c07	N69-39974	US-PATENT-CLASS-343-703	c07	N71-24614
US-PATENT-CLASS-343-7.5	c09	N71-24595	US-PATENT-CLASS-343-705	c07	N70-38200
US-PATENT-CLASS-343-7.5	c07	N72-11149	US-PATENT-CLASS-343-705	c07	N70-40202
US-PATENT-CLASS-343-7.5	c44	N74-19870	US-PATENT-CLASS-343-705	c31	N71-10747
US-PATENT-CLASS-343-9	c32	N75-15854	US-PATENT-CLASS-343-705	c03	N76-32140
US-PATENT-CLASS-343-9	c32	N79-10264	US-PATENT-CLASS-343-706	c07	N72-21117
US-PATENT-CLASS-343-10	c32	N77-32342	US-PATENT-CLASS-343-708	c09	N71-22888
US-PATENT-CLASS-343-11R	c09	N73-12211	US-PATENT-CLASS-343-708	c07	N71-22984
US-PATENT-CLASS-343-11VB	c09	N73-12211	US-PATENT-CLASS-343-708	c07	N71-28980
US-PATENT-CLASS-343-12	c21	N70-41930	US-PATENT-CLASS-343-708	c09	N72-25247
US-PATENT-CLASS-343-12	c10	N72-20224	US-PATENT-CLASS-343-708	c32	N78-20864
JS-PATENT-CLASS-343-12R	c08	N72-25209	US-PATENT-CLASS-343-718	c09	N71-18720
US-PATENT-CLASS-343-13	c09	N71-18598	US-PATENT-CLASS-343-720	c09	N72-12136
US-PATENT-CLASS-343-14	c07	N70-41680	US-PATENT-CLASS-343-725	c07	N73-28013
US-PATENT-CLASS-343-14	c08	N72-25209	US-PATENT-CLASS-343-729	c07	N73-28013
US-PATENT-CLASS-343-14	c14	N73-25461	US-PATENT-CLASS-343-730	c32	N74-20863
US-PATENT-CLASS-343-14	c32	N79-14267	US-PATENT-CLASS-343-754	c09	N73-19234
US-PATENT-CLASS-343-16	c09	N71-20864	US-PATENT-CLASS-343-755	c33	N76-27472
US-PATENT-CLASS-343-16	c10	N71-21483	US-PATENT-CLASS-343-761	c33	N75-19516
US-PATENT-CLASS-343-16M	c10	N72-22235	US-PATENT-CLASS-343-761	c32	N76-21365
US-PATENT-CLASS-343-16M	c44	N78-28594	US-PATENT-CLASS-343-762	c07	N72-25174
US-PATENT-CLASS-343-17.2	c07	N70-36911	US-PATENT-CLASS-343-768	c10	N71-26142
US-PATENT-CLASS-343-17.2PC	c35	N79-10391	US-PATENT-CLASS-343-769	c32	N74-20864
US-PATENT-CLASS-343-17.5	c14	N73-25461	US-PATENT-CLASS-343-770	c09	N72-31235
US-PATENT-CLASS-343-17.5	c32	N75-15854	US-PATENT-CLASS-343-770	c33	N76-14372
US-PATENT-CLASS-343-17.7	c07	N71-12391	US-PATENT-CLASS-343-771	c07	N71-28809
US-PATENT-CLASS-343-17.7	c44	N78-19870	US-PATENT-CLASS-343-771	c07	N72-11148
US-PATENT-CLASS-343-17.7	c32	N77-31350	US-PATENT-CLASS-343-771	c09	N72-21244
US-PATENT-CLASS-343-17.7	c32	N79-11265	US-PATENT-CLASS-343-771	c07	N72-22127
US-PATENT-CLASS-343-18	c31	N70-37981	US-PATENT-CLASS-343-771	c09	N72-25247
US-PATENT-CLASS-343-18	c07	N70-40063	US-PATENT-CLASS-343-771	c09	N72-31235
US-PATENT-CLASS-343-18	c30	N70-40309	US-PATENT-CLASS-343-772	c07	N72-20141
US-PATENT-CLASS-343-18	c07	N70-41678	US-PATENT-CLASS-343-773	c07	N72-20141
US-PATENT-CLASS-343-18B	c32	N78-12912	US-PATENT-CLASS-343-776	c07	N71-12396
US-PATENT-CLASS-343-18B	c32	N77-21267	US-PATENT-CLASS-343-777	c07	N71-27233
US-PATENT-CLASS-343-100	c10	N71-18722	US-PATENT-CLASS-343-777	c07	N72-25174
US-PATENT-CLASS-343-100	c07	N71-19854	US-PATENT-CLASS-343-779	c07	N71-11285
US-PATENT-CLASS-343-100	c30	N71-23723	US-PATENT-CLASS-343-779	c10	N72-22235
US-PATENT-CLASS-343-100	c07	N71-24621	US-PATENT-CLASS-343-779	c07	N72-25174
US-PATENT-CLASS-343-100	c09	N71-24804	US-PATENT-CLASS-343-779	c32	N76-15329
US-PATENT-CLASS-343-100	c31	N71-24813	US-PATENT-CLASS-343-779	c33	N76-27472
US-PATENT-CLASS-343-100	c07	N71-27056	US-PATENT-CLASS-343-781	c09	N70-35219
US-PATENT-CLASS-343-100	c07	N71-28900	US-PATENT-CLASS-343-781	c09	N70-35382
US-PATENT-CLASS-343-100CL	c32	N77-32342	US-PATENT-CLASS-343-781	c09	N70-35425
US-PATENT-CLASS-343-100CL	c32	N79-14268	US-PATENT-CLASS-343-781	c07	N72-32169
US-PATENT-CLASS-343-100ME	c14	N72-28437	US-PATENT-CLASS-343-781	c32	N78-11000
US-PATENT-CLASS-343-100ME	c14	N73-26432	US-PATENT-CLASS-343-781	c33	N75-19516
US-PATENT-CLASS-343-100PE	c32	N75-24982	US-PATENT-CLASS-343-781	c32	N76-21365
US-PATENT-CLASS-343-100R	c10	N73-16206	US-PATENT-CLASS-343-781CA	c32	N78-31321
US-PATENT-CLASS-343-100SA	c10	N73-16206	US-PATENT-CLASS-343-782	c07	N73-14130
US-PATENT-CLASS-343-100SA	c33	N74-20860	US-PATENT-CLASS-343-782	c32	N78-31321
US-PATENT-CLASS-343-100SA	c17	N76-21250	US-PATENT-CLASS-343-784	c07	N71-28980
US-PATENT-CLASS-343-100ST	c07	N72-21118	US-PATENT-CLASS-343-786	c07	N71-15907
US-PATENT-CLASS-343-100ST	c33	N74-20860	US-PATENT-CLASS-343-786	c07	N71-22750
US-PATENT-CLASS-343-100ST	c32	N75-15854	US-PATENT-CLASS-343-786	c07	N71-26101
US-PATENT-CLASS-343-100ST	c17	N76-21250	US-PATENT-CLASS-343-786	c07	N71-27233
US-PATENT-CLASS-343-100ST	c32	N77-20289	US-PATENT-CLASS-343-786	c07	N72-20141
US-PATENT-CLASS-343-105R	c32	N75-26194	US-PATENT-CLASS-343-786	c10	N72-22235
US-PATENT-CLASS-343-108R	c04	N74-13420	US-PATENT-CLASS-343-786	c07	N72-25174
US-PATENT-CLASS-343-112	c21	N71-13958	US-PATENT-CLASS-343-786	c09	N72-31235
US-PATENT-CLASS-343-112	c02	N71-19287	US-PATENT-CLASS-343-786	c32	N74-20863
US-PATENT-CLASS-343-112	c21	N71-24948	US-PATENT-CLASS-343-786	c32	N76-15330
US-PATENT-CLASS-343-112CA	c21	N73-13643	US-PATENT-CLASS-343-786	c32	N76-21365
US-PATENT-CLASS-343-112CA	c21	N73-30641	US-PATENT-CLASS-343-797	c09	N71-24842
US-PATENT-CLASS-343-112CA	c03	N75-30132	US-PATENT-CLASS-343-797	c07	N72-22127
US-PATENT-CLASS-343-112D	c14	N72-28437	US-PATENT-CLASS-343-797	c09	N72-31235
JS-PATENT-CLASS-343-112D	c32	N75-26194	US-PATENT-CLASS-343-797	c07	N73-28013
US-PATENT-CLASS-343-112R	c09	N73-32110	US-PATENT-CLASS-343-797	c32	N74-20863
US-PATENT-CLASS-343-112R	c17	N78-17140	US-PATENT-CLASS-343-797	c33	N76-14372
JS-PATENT-CLASS-343-112TC	c17	N76-21250	US-PATENT-CLASS-343-799	c07	N71-27233
US-PATENT-CLASS-343-113	c10	N71-21473	US-PATENT-CLASS-343-803	c07	N73-28013
US-PATENT-CLASS-343-113	c07	N71-24625	US-PATENT-CLASS-343-823	c07	N71-28979
US-PATENT-CLASS-343-113R	c09	N73-32110	US-PATENT-CLASS-343-833	c31	N70-34135
US-PATENT-CLASS-343-113R	c44	N78-28594	US-PATENT-CLASS-343-837	c07	N72-32169
US-PATENT-CLASS-343-117	c07	N71-27056	US-PATENT-CLASS-343-837	c07	N73-14130
US-PATENT-CLASS-343-117R	c32	N79-13214	US-PATENT-CLASS-343-837	c33	N75-19516
US-PATENT-CLASS-343-118	c32	N79-13214	US-PATENT-CLASS-343-837	c32	N76-15329
US-PATENT-CLASS-343-119	c44	N78-28594	US-PATENT-CLASS-343-837	c32	N76-18295
US-PATENT-CLASS-343-176	c07	N71-27056	US-PATENT-CLASS-343-837	c32	N78-31321
US-PATENT-CLASS-343-176	c32	N76-14321	US-PATENT-CLASS-343-839	c09	N73-19234
US-PATENT-CLASS-343-179	c07	N72-11149	US-PATENT-CLASS-343-840	c07	N71-27233
US-PATENT-CLASS-343-179	c07	N73-20174	US-PATENT-CLASS-343-840	c09	N72-12136
US-PATENT-CLASS-343-179	c32	N78-15323	US-PATENT-CLASS-343-840	c07	N72-32169
US-PATENT-CLASS-343-179	c32	N79-20296	US-PATENT-CLASS-343-840	c32	N76-18295
US-PATENT-CLASS-343-200	c07	N73-16121	US-PATENT-CLASS-343-844	c32	N79-11264
US-PATENT-CLASS-343-204	c07	N73-26118	US-PATENT-CLASS-343-846	c33	N76-14372

NUMBER INDEX

US-PATENT-CLASS-343-853	c07 N72-11148	US-PATENT-CLASS-350-55	c14 N73-30393
US-PATENT-CLASS-343-853	c07 N72-22127	US-PATENT-CLASS-350-55	c23 N73-30666
US-PATENT-CLASS-343-853	c07 N72-25174	US-PATENT-CLASS-350-55	c89 N79-10969
US-PATENT-CLASS-343-853	c09 N72-31235	US-PATENT-CLASS-350-58	c14 N71-15604
US-PATENT-CLASS-343-853	c10 N73-16206	US-PATENT-CLASS-350-79	c14 N72-32452
US-PATENT-CLASS-343-853	c32 N74-20863	US-PATENT-CLASS-350-86	c14 N72-22445
US-PATENT-CLASS-343-853	c32 N74-20864	US-PATENT-CLASS-350-96	c07 N71-26291
US-PATENT-CLASS-343-854	c07 N69-27460	US-PATENT-CLASS-350-96R	c60 N77-14751
US-PATENT-CLASS-343-854	c07 N71-27233	US-PATENT-CLASS-350-96R	c60 N77-32731
US-PATENT-CLASS-343-854	c09 N73-19238	US-PATENT-CLASS-350-96R	c60 N78-10709
US-PATENT-CLASS-343-854	c33 N74-20860	US-PATENT-CLASS-350-96WG	c36 N75-31427
US-PATENT-CLASS-343-854	c33 N76-27472	US-PATENT-CLASS-350-96WG	c36 N76-18428
US-PATENT-CLASS-343-854	c32 N79-11264	US-PATENT-CLASS-350-96WG	c36 N76-24553
US-PATENT-CLASS-343-872	c07 N71-28980	US-PATENT-CLASS-350-100	c36 N77-25501
US-PATENT-CLASS-343-873	c07 N71-19493	US-PATENT-CLASS-350-102	c23 N71-29123
US-PATENT-CLASS-343-873	c09 N72-25247	US-PATENT-CLASS-350-102	c36 N77-25501
US-PATENT-CLASS-343-876	c32 N76-15329	US-PATENT-CLASS-350-138	c23 N72-27228
US-PATENT-CLASS-343-880	c07 N73-26117	US-PATENT-CLASS-350-145	c74 N77-20882
US-PATENT-CLASS-343-882	c33 N76-32457	US-PATENT-CLASS-350-147	c14 N72-27409
US-PATENT-CLASS-343-883	c07 N73-26117	US-PATENT-CLASS-350-150	c26 N72-25680
US-PATENT-CLASS-343-884	c07 N71-27191	US-PATENT-CLASS-350-150	c36 N76-18427
US-PATENT-CLASS-343-889	c07 N73-26117	US-PATENT-CLASS-350-151	c36 N74-13205
US-PATENT-CLASS-343-893	c09 N72-21244	US-PATENT-CLASS-350-151	c35 N78-29421
US-PATENT-CLASS-343-893	c07 N73-28013	US-PATENT-CLASS-350-157	c74 N79-14891
US-PATENT-CLASS-343-895	c09 N73-19234	US-PATENT-CLASS-350-159	c74 N78-17865
US-PATENT-CLASS-343-895	c07 N73-26117	US-PATENT-CLASS-350-160	c36 N76-18427
US-PATENT-CLASS-343-909	c32 N74-11000	US-PATENT-CLASS-350-160R	c14 N72-25410
US-PATENT-CLASS-343-909	c35 N76-15435	US-PATENT-CLASS-350-160R	c26 N72-25680
US-PATENT-CLASS-343-912	c07 N72-21117	US-PATENT-CLASS-350-161	c26 N72-27784
US-PATENT-CLASS-343-912	c07 N72-22127	US-PATENT-CLASS-350-161	c36 N75-31427
US-PATENT-CLASS-343-912	c32 N76-18295	US-PATENT-CLASS-350-162	c14 N72-17323
US-PATENT-CLASS-343-915	c31 N71-16102	US-PATENT-CLASS-350-162SP	c23 N73-30666
US-PATENT-CLASS-343-915	c09 N71-20658	US-PATENT-CLASS-350-162SP	c74 N76-31998
US-PATENT-CLASS-343-915	c07 N72-32169	US-PATENT-CLASS-350-162SP	c74 N77-28932
US-PATENT-CLASS-343-915	c07 N73-14130	US-PATENT-CLASS-350-162SP	c36 N77-32478
US-PATENT-CLASS-343-915	c07 N73-24176	US-PATENT-CLASS-350-165	c27 N78-31233
US-PATENT-CLASS-343-915	c32 N76-18295	US-PATENT-CLASS-350-170	c73 N78-32848
US-PATENT-CLASS-343-915	c33 N76-32457	US-PATENT-CLASS-350-171	c23 N72-23695
US-PATENT-CLASS-346-1	c12 N71-20815	US-PATENT-CLASS-350-173	c73 N78-32848
US-PATENT-CLASS-346-1	c09 N72-21246	US-PATENT-CLASS-350-174	c74 N77-20882
US-PATENT-CLASS-346-23	c14 N72-18411	US-PATENT-CLASS-350-174	c73 N78-32848
US-PATENT-CLASS-346-24	c35 N74-15831	US-PATENT-CLASS-350-175PS	c14 N72-25414
US-PATENT-CLASS-346-29	c09 N72-21246	US-PATENT-CLASS-350-175NG	c27 N78-31233
US-PATENT-CLASS-346-33R	c35 N74-32877	US-PATENT-CLASS-350-189	c23 N71-24857
US-PATENT-CLASS-346-44	c09 N69-21467	US-PATENT-CLASS-350-199	c14 N73-30393
US-PATENT-CLASS-346-50	c14 N71-21006	US-PATENT-CLASS-350-202	c23 N73-20741
US-PATENT-CLASS-346-74MD	c21 N73-13644	US-PATENT-CLASS-350-202	c74 N77-28932
US-PATENT-CLASS-346-74MT	c35 N79-16246	US-PATENT-CLASS-350-203	c14 N72-25409
US-PATENT-CLASS-346-107	c23 N71-23976	US-PATENT-CLASS-350-204	c14 N73-30393
US-PATENT-CLASS-346-107A	c14 N72-18411	US-PATENT-CLASS-350-204	c74 N78-17866
US-PATENT-CLASS-346-108	c35 N74-15831	US-PATENT-CLASS-350-211	c44 N76-14602
US-PATENT-CLASS-346-110	c14 N73-32322	US-PATENT-CLASS-350-213	c14 N71-15622
US-PATENT-CLASS-346-138	c21 N73-13644	US-PATENT-CLASS-350-236	c74 N78-15095
US-PATENT-CLASS-346-138	c35 N74-15831	US-PATENT-CLASS-350-253	c35 N77-27366
US-PATENT-CLASS-346R	c73 N77-18891	US-PATENT-CLASS-350-269	c33 N74-20861
US-PATENT-CLASS-350-1	c23 N69-24332	US-PATENT-CLASS-350-270	c70 N74-21300
US-PATENT-CLASS-350-1	c07 N71-29065	US-PATENT-CLASS-350-275	c09 N71-19479
US-PATENT-CLASS-350-1	c16 N72-12440	US-PATENT-CLASS-350-285	c14 N71-15605
US-PATENT-CLASS-350-1	c24 N76-24363	US-PATENT-CLASS-350-285	c14 N71-17662
US-PATENT-CLASS-350-1	c74 N78-15879	US-PATENT-CLASS-350-285	c19 N71-26674
US-PATENT-CLASS-350-2	c23 N71-30027	US-PATENT-CLASS-350-285	c15 N72-11386
US-PATENT-CLASS-350-3.5	c16 N71-15551	US-PATENT-CLASS-350-285	c16 N73-33397
US-PATENT-CLASS-350-3.5	c16 N71-15565	US-PATENT-CLASS-350-285	c74 N74-15095
US-PATENT-CLASS-350-3.5	c16 N71-15567	US-PATENT-CLASS-350-286	c07 N71-29065
US-PATENT-CLASS-350-3.5	c16 N71-26154	US-PATENT-CLASS-350-286	c73 N78-32848
US-PATENT-CLASS-350-3.5	c16 N71-29131	US-PATENT-CLASS-350-287	c15 N72-11386
US-PATENT-CLASS-350-3.5	c14 N72-17324	US-PATENT-CLASS-350-288	c23 N71-29123
US-PATENT-CLASS-350-3.5	c16 N73-30476	US-PATENT-CLASS-350-288	c12 N76-15189
US-PATENT-CLASS-350-3.5	c35 N74-15146	US-PATENT-CLASS-350-288	c74 N77-28933
US-PATENT-CLASS-350-3.5	c35 N74-17153	US-PATENT-CLASS-350-288	c44 N79-11471
US-PATENT-CLASS-350-3.5	c35 N74-26946	US-PATENT-CLASS-350-292	c35 N75-12273
US-PATENT-CLASS-350-3.5	c35 N75-25124	US-PATENT-CLASS-350-292	c44 N79-14529
US-PATENT-CLASS-350-3.5	c35 N75-27328	US-PATENT-CLASS-350-293	c16 N73-16536
US-PATENT-CLASS-350-3.5	c35 N76-18402	US-PATENT-CLASS-350-293	c12 N76-15189
US-PATENT-CLASS-350-3.5	c35 N78-17357	US-PATENT-CLASS-350-293	c44 N76-24696
US-PATENT-CLASS-350-3.5	c38 N78-32447	US-PATENT-CLASS-350-293	c44 N78-10554
US-PATENT-CLASS-350-6	c14 N69-27461	US-PATENT-CLASS-350-293	c44 N79-14529
US-PATENT-CLASS-350-6	c36 N74-15145	US-PATENT-CLASS-350-294	c89 N79-10969
US-PATENT-CLASS-350-7	c74 N74-15095	US-PATENT-CLASS-350-295	c44 N77-32583
US-PATENT-CLASS-350-16	c14 N72-22444	US-PATENT-CLASS-350-299	c74 N74-21304
US-PATENT-CLASS-350-19	c14 N72-22441	US-PATENT-CLASS-350-299	c44 N76-24696
US-PATENT-CLASS-350-23	c14 N72-22441	US-PATENT-CLASS-350-299	c74 N77-28932
US-PATENT-CLASS-350-26	c14 N72-22441	US-PATENT-CLASS-350-299	c44 N78-10554
US-PATENT-CLASS-350-35	c14 N72-22441	US-PATENT-CLASS-350-299	c44 N78-31526
US-PATENT-CLASS-350-36	c14 N72-22441	US-PATENT-CLASS-350-299	c44 N79-11471
US-PATENT-CLASS-350-49	c14 N72-22441	US-PATENT-CLASS-350-310	c11 N69-24321
US-PATENT-CLASS-350-52	c14 N72-22441	US-PATENT-CLASS-350-310	c23 N71-24868
US-PATENT-CLASS-350-52	c14 N72-22444	US-PATENT-CLASS-350-310	c23 N71-29123
US-PATENT-CLASS-350-55	c23 N71-33229	US-PATENT-CLASS-350-310	c23 N71-33229

NUMBER INDEX

US-PATENT-CLASS-350-310	c23	N72-22673	US-PATENT-CLASS-356-110	c14	N73-25463
US-PATENT-CLASS-350-310	c74	N77-28933	US-PATENT-CLASS-356-110	c35	N78-18391
US-PATENT-CLASS-350-311	c74	N75-25706	US-PATENT-CLASS-356-112	c72	N74-19310
US-PATENT-CLASS-350-312	c16	N72-12440	US-PATENT-CLASS-356-113	c14	N72-17323
US-PATENT-CLASS-350-320	c74	N77-28933	US-PATENT-CLASS-356-113	c35	N74-23040
US-PATENT-CLASS-350-320	c44	N77-32583	US-PATENT-CLASS-356-114	c14	N73-12446
US-PATENT-CLASS-350-320	c73	N78-32848	US-PATENT-CLASS-356-114	c35	N76-31490
US-PATENT-CLASS-350-320	c44	N79-14529	US-PATENT-CLASS-356-117	c23	N71-16101
US-PATENT-CLASS-351-23	c05	N73-26072	US-PATENT-CLASS-356-120	c74	N78-27904
US-PATENT-CLASS-351-23	c52	N76-30793	US-PATENT-CLASS-356-123	c74	N76-19935
US-PATENT-CLASS-351-30	c05	N73-26072	US-PATENT-CLASS-356-124	c74	N76-19935
US-PATENT-CLASS-351-30	c52	N76-30793	US-PATENT-CLASS-356-124	c74	N79-11865
US-PATENT-CLASS-351-36	c05	N73-26072	US-PATENT-CLASS-356-129	c74	N79-20856
US-PATENT-CLASS-351-36	c52	N76-30793	US-PATENT-CLASS-356-138	c14	N72-20379
US-PATENT-CLASS-351-38	c54	N75-27759	US-PATENT-CLASS-356-138	c16	N73-33397
US-PATENT-CLASS-351-166	c74	N78-32854	US-PATENT-CLASS-356-141	c14	N72-27409
US-PATENT-CLASS-352-84	c16	N71-33410	US-PATENT-CLASS-356-141	c14	N73-28490
US-PATENT-CLASS-352-84	c14	N72-18411	US-PATENT-CLASS-356-141	c36	N74-21091
US-PATENT-CLASS-352-169	c14	N73-14427	US-PATENT-CLASS-356-141	c89	N74-30886
US-PATENT-CLASS-353-54	c34	N74-23066	US-PATENT-CLASS-356-141	c74	N77-22951
US-PATENT-CLASS-353-61	c34	N74-23066	US-PATENT-CLASS-356-147	c89	N74-30886
US-PATENT-CLASS-354-77	c74	N79-20856	US-PATENT-CLASS-356-148	c16	N73-33397
US-PATENT-CLASS-354-234	c33	N74-20861	US-PATENT-CLASS-356-150	c15	N71-28740
US-PATENT-CLASS-354-234	c70	N74-21300	US-PATENT-CLASS-356-152	c15	N71-28740
US-PATENT-CLASS-355-18	c14	N73-33361	US-PATENT-CLASS-356-152	c16	N72-13437
US-PATENT-CLASS-356-4	c14	N72-17326	US-PATENT-CLASS-356-152	c14	N72-20379
US-PATENT-CLASS-356-4	c07	N73-26119	US-PATENT-CLASS-356-152	c14	N72-27409
US-PATENT-CLASS-356-4	c36	N74-15145	US-PATENT-CLASS-356-152	c14	N73-25462
US-PATENT-CLASS-356-4	c35	N75-15014	US-PATENT-CLASS-356-152	c36	N74-15145
US-PATENT-CLASS-356-5	c07	N73-26119	US-PATENT-CLASS-356-152	c36	N74-21091
US-PATENT-CLASS-356-5	c36	N74-15145	US-PATENT-CLASS-356-152	c74	N74-21304
US-PATENT-CLASS-356-5	c36	N75-15028	US-PATENT-CLASS-356-152	c74	N77-22951
US-PATENT-CLASS-356-17	c14	N72-21409	US-PATENT-CLASS-356-153	c15	N71-28740
US-PATENT-CLASS-356-18	c14	N72-21409	US-PATENT-CLASS-356-153	c23	N71-29125
US-PATENT-CLASS-356-28	c21	N71-19212	US-PATENT-CLASS-356-153	c16	N73-33397
US-PATENT-CLASS-356-28	c16	N71-24828	US-PATENT-CLASS-356-153	c18	N76-14186
US-PATENT-CLASS-356-28	c72	N74-19310	US-PATENT-CLASS-356-154	c15	N71-26673
US-PATENT-CLASS-356-28	c36	N75-15028	US-PATENT-CLASS-356-159	c36	N78-14380
US-PATENT-CLASS-356-28	c35	N75-16783	US-PATENT-CLASS-356-160	c36	N78-14380
US-PATENT-CLASS-356-28	c36	N76-14447	US-PATENT-CLASS-356-161	c26	N73-26751
US-PATENT-CLASS-356-28	c36	N77-25501	US-PATENT-CLASS-356-162	c66	N76-19888
US-PATENT-CLASS-356-28	c74	N78-17866	US-PATENT-CLASS-356-165	c38	N78-17396
US-PATENT-CLASS-356-28	c35	N79-18296	US-PATENT-CLASS-356-166	c14	N71-23175
US-PATENT-CLASS-356-32	c14	N72-11364	US-PATENT-CLASS-356-167	c14	N72-11364
US-PATENT-CLASS-356-32	c32	N73-20740	US-PATENT-CLASS-356-167	c66	N76-19888
US-PATENT-CLASS-356-36	c23	N71-16365	US-PATENT-CLASS-356-167	c74	N78-27904
US-PATENT-CLASS-356-37	c45	N76-21742	US-PATENT-CLASS-356-169	c60	N78-10709
US-PATENT-CLASS-356-43	c74	N74-15095	US-PATENT-CLASS-356-171	c74	N77-22950
US-PATENT-CLASS-356-43	c75	N74-30156	US-PATENT-CLASS-356-172	c16	N73-33397
US-PATENT-CLASS-356-51	c06	N72-31141	US-PATENT-CLASS-356-172	c36	N74-21091
US-PATENT-CLASS-356-51	c35	N75-30502	US-PATENT-CLASS-356-172	c74	N77-22951
US-PATENT-CLASS-356-71	c66	N76-19888	US-PATENT-CLASS-356-180	c35	N74-27860
US-PATENT-CLASS-356-72	c14	N71-23268	US-PATENT-CLASS-356-186	c35	N75-19613
US-PATENT-CLASS-356-72	c33	N73-27796	US-PATENT-CLASS-356-189	c35	N75-19613
US-PATENT-CLASS-356-72	c38	N78-32447	US-PATENT-CLASS-356-197	c37	N74-18123
US-PATENT-CLASS-356-73	c75	N74-30156	US-PATENT-CLASS-356-199	c36	N78-14380
US-PATENT-CLASS-356-73	c38	N78-32447	US-PATENT-CLASS-356-201	c75	N74-30156
US-PATENT-CLASS-356-74	c30	N71-15990	US-PATENT-CLASS-356-201	c35	N77-19411
US-PATENT-CLASS-356-76	c23	N71-26206	US-PATENT-CLASS-356-202	c26	N73-26751
US-PATENT-CLASS-356-76	c14	N71-29041	US-PATENT-CLASS-356-203	c14	N71-26788
US-PATENT-CLASS-356-83	c35	N75-19613	US-PATENT-CLASS-356-204	c35	N77-19411
US-PATENT-CLASS-356-85	c37	N74-18123	US-PATENT-CLASS-356-204	c74	N78-17867
US-PATENT-CLASS-356-85	c75	N74-30156	US-PATENT-CLASS-356-207	c45	N76-17656
US-PATENT-CLASS-356-87	c75	N74-30156	US-PATENT-CLASS-356-208	c74	N78-33913
US-PATENT-CLASS-356-96	c35	N75-19613	US-PATENT-CLASS-356-209	c23	N71-16341
US-PATENT-CLASS-356-97	c35	N77-14411	US-PATENT-CLASS-356-209	c14	N71-28993
US-PATENT-CLASS-356-103	c14	N71-28994	US-PATENT-CLASS-356-209	c14	N72-17323
US-PATENT-CLASS-356-103	c36	N75-15028	US-PATENT-CLASS-356-209	c35	N76-31490
US-PATENT-CLASS-356-104	c74	N78-13874	US-PATENT-CLASS-356-210	c74	N79-11865
US-PATENT-CLASS-356-104	c16	N71-24074	US-PATENT-CLASS-356-212	c35	N77-31865
US-PATENT-CLASS-356-106	c74	N78-13874	US-PATENT-CLASS-356-216	c74	N74-15095
US-PATENT-CLASS-356-106	c14	N71-17627	US-PATENT-CLASS-356-222	c03	N72-20033
US-PATENT-CLASS-356-106	c14	N71-17655	US-PATENT-CLASS-356-236	c74	N77-21941
US-PATENT-CLASS-356-106	c14	N71-27215	US-PATENT-CLASS-356-237	c74	N77-10899
US-PATENT-CLASS-356-106	c14	N73-12446	US-PATENT-CLASS-356-237	c38	N78-17395
US-PATENT-CLASS-356-106	c35	N74-15146	US-PATENT-CLASS-356-237	c38	N78-17396
US-PATENT-CLASS-356-106LR	c36	N75-19653	US-PATENT-CLASS-356-239	c74	N77-10899
US-PATENT-CLASS-356-106R	c72	N74-19310	US-PATENT-CLASS-356-241	c14	N72-32452
US-PATENT-CLASS-356-106R	c36	N76-14447	US-PATENT-CLASS-356-244	c14	N72-17323
US-PATENT-CLASS-356-106R	c35	N77-10493	US-PATENT-CLASS-356-244	c35	N76-31490
US-PATENT-CLASS-356-106R	c47	N77-10753	US-PATENT-CLASS-356-246	c35	N74-27860
US-PATENT-CLASS-356-106S	c23	N73-13661	US-PATENT-CLASS-356-246	c74	N78-17867
US-PATENT-CLASS-356-106S	c35	N74-23040	US-PATENT-CLASS-356-248	c14	N72-22444
US-PATENT-CLASS-356-106S	c35	N76-31490	US-PATENT-CLASS-356-300	c43	N79-17288
US-PATENT-CLASS-356-107	c35	N78-18391	US-PATENT-CLASS-356-407	c43	N79-17288
US-PATENT-CLASS-356-108	c16	N71-24170	US-PATENT-CLASS-357-4	c43	N79-17288
US-PATENT-CLASS-356-108	c26	N73-26751	US-PATENT-CLASS-357-5	c33	N78-13320
US-PATENT-CLASS-356-109	c16	N73-30476	US-PATENT-CLASS-357-5	c33	N75-31332
US-PATENT-CLASS-356-109	c16	N73-30476	US-PATENT-CLASS-357-5	c33	N78-13320

NUMBER INDEX

US-PATENT-CLASS-357-7	c33	N75-31331	US-PATENT-CLASS-408-225	c37	N77-22478
US-PATENT-CLASS-357-15	c44	N78-13526	US-PATENT-CLASS-415-1	c34	N79-20335
US-PATENT-CLASS-357-15	c44	N79-11467	US-PATENT-CLASS-415-9	c44	N79-14527
US-PATENT-CLASS-357-16	c44	N78-13526	US-PATENT-CLASS-415-115	c07	N79-10057
US-PATENT-CLASS-357-16	c44	N79-11467	US-PATENT-CLASS-415-116	c07	N79-10057
US-PATENT-CLASS-357-22	c33	N79-11314	US-PATENT-CLASS-415-143	c34	N79-20335
US-PATENT-CLASS-357-22	c33	N79-12321	US-PATENT-CLASS-415-145	c07	N77-28118
US-PATENT-CLASS-357-23	c76	N75-25730	US-PATENT-CLASS-415-174	c37	N79-18318
US-PATENT-CLASS-357-23	c33	N79-12321	US-PATENT-CLASS-415-180	c07	N77-23106
US-PATENT-CLASS-357-24	c33	N75-31331	US-PATENT-CLASS-415-180	c37	N78-10467
US-PATENT-CLASS-357-29	c76	N75-25730	US-PATENT-CLASS-415-181	c07	N74-28226
US-PATENT-CLASS-357-30	c44	N76-28635	US-PATENT-CLASS-415-181	c07	N74-31270
US-PATENT-CLASS-357-30	c44	N78-13526	US-PATENT-CLASS-415-200	c07	N79-14096
US-PATENT-CLASS-357-30	c44	N78-24609	US-PATENT-CLASS-415-200	c37	N79-18318
US-PATENT-CLASS-357-30	c44	N78-25527	US-PATENT-CLASS-415-201	c07	N79-14096
US-PATENT-CLASS-357-30	c44	N79-11467	US-PATENT-CLASS-416-2	c44	N79-14527
US-PATENT-CLASS-357-30	c44	N79-14528	US-PATENT-CLASS-416-25	c05	N75-12930
US-PATENT-CLASS-357-41	c33	N79-12321	US-PATENT-CLASS-416-51	c05	N79-17847
US-PATENT-CLASS-357-42	c76	N75-25730	US-PATENT-CLASS-416-61	c35	N78-24515
US-PATENT-CLASS-357-45	c33	N79-12321	US-PATENT-CLASS-416-61	c37	N79-14382
US-PATENT-CLASS-357-52	c76	N75-25730	US-PATENT-CLASS-416-88	c05	N79-17847
US-PATENT-CLASS-357-54	c76	N75-25730	US-PATENT-CLASS-416-89	c05	N79-17847
US-PATENT-CLASS-357-55	c33	N79-12321	US-PATENT-CLASS-416-104	c05	N77-17029
US-PATENT-CLASS-357-59	c44	N76-28635	US-PATENT-CLASS-416-115	c02	N72-11018
US-PATENT-CLASS-357-59	c44	N78-24609	US-PATENT-CLASS-416-121	c02	N72-11018
US-PATENT-CLASS-357-63	c33	N76-31409	US-PATENT-CLASS-416-127	c02	N72-11018
US-PATENT-CLASS-357-65	c44	N78-25527	US-PATENT-CLASS-416-130	c02	N72-11018
US-PATENT-CLASS-357-65	c44	N79-11467	US-PATENT-CLASS-416-132R	c05	N79-17847
US-PATENT-CLASS-357-67	c44	N78-25527	US-PATENT-CLASS-416-135	c07	N77-32148
US-PATENT-CLASS-357-67	c44	N79-11467	US-PATENT-CLASS-416-135	c37	N78-10468
US-PATENT-CLASS-357-73	c33	N78-13320	US-PATENT-CLASS-416-138	c05	N77-17029
US-PATENT-CLASS-357-91	c76	N75-25730	US-PATENT-CLASS-416-138	c05	N79-17847
US-PATENT-CLASS-357-91	c33	N78-27326	US-PATENT-CLASS-416-141	c05	N77-17029
US-PATENT-CLASS-358-36	c32	N75-21485	US-PATENT-CLASS-416-141	c37	N78-10468
US-PATENT-CLASS-358-41	c74	N78-17865	US-PATENT-CLASS-416-144	c35	N78-24515
US-PATENT-CLASS-358-44	c74	N77-18893	US-PATENT-CLASS-416-149	c02	N72-11018
US-PATENT-CLASS-358-55	c74	N78-17865	US-PATENT-CLASS-416-153	c07	N77-14025
US-PATENT-CLASS-358-81	c32	N79-20297	US-PATENT-CLASS-416-157B	c07	N79-14095
US-PATENT-CLASS-358-96	c52	N79-10724	US-PATENT-CLASS-416-160	c07	N77-14025
US-PATENT-CLASS-358-104	c09	N78-18083	US-PATENT-CLASS-416-160	c07	N79-14095
US-PATENT-CLASS-358-104	c74	N79-13855	US-PATENT-CLASS-416-162	c07	N77-14025
US-PATENT-CLASS-358-106	c39	N78-16387	US-PATENT-CLASS-416-162	c07	N79-14095
US-PATENT-CLASS-358-107	c35	N79-18296	US-PATENT-CLASS-416-165	c07	N77-14025
US-PATENT-CLASS-358-109	c32	N79-20297	US-PATENT-CLASS-416-167	c07	N77-14025
US-PATENT-CLASS-358-111	c52	N79-10724	US-PATENT-CLASS-416-167	c07	N79-14095
US-PATENT-CLASS-358-133	c32	N77-24328	US-PATENT-CLASS-416-190	c07	N77-32148
US-PATENT-CLASS-358-138	c32	N77-24328	US-PATENT-CLASS-416-193A	c07	N77-32148
US-PATENT-CLASS-358-142	c74	N78-14889	US-PATENT-CLASS-416-200	c02	N72-11018
US-PATENT-CLASS-358-225	c74	N78-17865	US-PATENT-CLASS-416-214A	c07	N78-33101
US-PATENT-CLASS-360-9	c35	N76-16391	US-PATENT-CLASS-416-220R	c07	N77-27116
US-PATENT-CLASS-360-10	c35	N76-16391	US-PATENT-CLASS-416-220R	c37	N78-10468
US-PATENT-CLASS-360-25	c35	N77-17426	US-PATENT-CLASS-416-221	c07	N77-27116
US-PATENT-CLASS-360-26	c33	N76-18353	US-PATENT-CLASS-416-223	c07	N74-28226
US-PATENT-CLASS-360-31	c35	N77-17426	US-PATENT-CLASS-416-224	c24	N77-19170
US-PATENT-CLASS-360-35	c35	N76-16391	US-PATENT-CLASS-416-230	c24	N77-19170
US-PATENT-CLASS-360-51	c33	N76-18353	US-PATENT-CLASS-416-237	c07	N74-28226
US-PATENT-CLASS-360-101	c35	N76-16391	US-PATENT-CLASS-416-241A	c07	N77-32148
US-PATENT-CLASS-361-395	c32	N78-24391	US-PATENT-CLASS-416-244A	c07	N78-33101
US-PATENT-CLASS-362-269	c17	N78-17140	US-PATENT-CLASS-416-248	c37	N78-10468
US-PATENT-CLASS-363-16	c33	N78-32341	US-PATENT-CLASS-417-36	c35	N75-19611
US-PATENT-CLASS-363-53	c33	N77-30365	US-PATENT-CLASS-417-50	c15	N71-27084
US-PATENT-CLASS-363-57	c33	N78-10377	US-PATENT-CLASS-417-52	c37	N74-27904
US-PATENT-CLASS-363-60	c33	N78-32341	US-PATENT-CLASS-417-88	c44	N78-32539
US-PATENT-CLASS-363-70	c33	N77-30365	US-PATENT-CLASS-417-138	c35	N75-19611
US-PATENT-CLASS-363-89	c33	N78-10377	US-PATENT-CLASS-417-141	c44	N76-29701
US-PATENT-CLASS-363-101	c33	N78-32341	US-PATENT-CLASS-417-152	c15	N72-22489
US-PATENT-CLASS-364-120	c52	N79-12694	US-PATENT-CLASS-417-207	c44	N76-29701
US-PATENT-CLASS-364-300	c52	N79-12694	US-PATENT-CLASS-417-209	c34	N76-17317
US-PATENT-CLASS-364-415	c52	N79-12694	US-PATENT-CLASS-417-209	c44	N76-29701
US-PATENT-CLASS-364-417	c52	N79-10724	US-PATENT-CLASS-417-225	c35	N78-10428
US-PATENT-CLASS-364-458	c32	N79-14267	US-PATENT-CLASS-417-379	c44	N76-29701
US-PATENT-CLASS-364-604	c32	N79-14267	US-PATENT-CLASS-417-391	c15	N73-24513
US-PATENT-CLASS-364-713	c32	N79-20297	US-PATENT-CLASS-417-395	c35	N75-19611
US-PATENT-CLASS-364-728	c32	N79-14267	US-PATENT-CLASS-417-470	c35	N74-15126
US-PATENT-CLASS-364-900	c52	N79-12694	US-PATENT-CLASS-417-471	c35	N74-15126
US-PATENT-CLASS-403-28	c60	N79-20751	US-PATENT-CLASS-422-41	c52	N79-14749
US-PATENT-CLASS-403-105	c27	N76-14264	US-PATENT-CLASS-422-48	c52	N79-14749
US-PATENT-CLASS-403-179	c37	N79-14382	US-PATENT-CLASS-423-231	c25	N74-12813
US-PATENT-CLASS-403-273	c27	N76-14264	US-PATENT-CLASS-423-242	c45	N79-12584
US-PATENT-CLASS-408-80	c37	N77-23482	US-PATENT-CLASS-423-249	c25	N76-27383
US-PATENT-CLASS-408-111	c37	N74-25968	US-PATENT-CLASS-423-345	c76	N76-25049
US-PATENT-CLASS-408-112	c37	N74-25968	US-PATENT-CLASS-423-346	c76	N76-25049
US-PATENT-CLASS-408-137	c37	N75-25186	US-PATENT-CLASS-423-352	c36	N76-18427
US-PATENT-CLASS-408-186	c15	N71-33518	US-PATENT-CLASS-423-407	c24	N76-14203
US-PATENT-CLASS-408-186	c37	N75-25186	US-PATENT-CLASS-423-446	c15	N73-19457
US-PATENT-CLASS-408-193	c37	N77-22478	US-PATENT-CLASS-423-579	c46	N74-13011
US-PATENT-CLASS-408-193	c37	N75-25186	US-PATENT-CLASS-423-581	c25	N79-10162
US-PATENT-CLASS-408-195	c37	N77-22478	US-PATENT-CLASS-423-582	c26	N78-32229
	c37	N75-25186	US-PATENT-CLASS-423-583	c26	N78-32229

NUMBER INDEX

US-PATENT-CLASS-423-625	c15 N73-19457	US-PATENT-CLASS-427-376C	c24 N79-17916
US-PATENT-CLASS-423-644	c36 N76-18427	US-PATENT-CLASS-427-379	c27 N76-22377
US-PATENT-CLASS-423-648R	c44 N77-22607	US-PATENT-CLASS-427-379	c27 N76-23426
US-PATENT-CLASS-423-648R	c28 N78-24365	US-PATENT-CLASS-427-379	c27 N78-32260
US-PATENT-CLASS-423-650	c44 N76-18642	US-PATENT-CLASS-427-380	c27 N76-22377
US-PATENT-CLASS-423-650	c44 N76-29700	US-PATENT-CLASS-427-380	c27 N76-23426
US-PATENT-CLASS-423-650	c44 N76-29704	US-PATENT-CLASS-427-380	c27 N78-32260
US-PATENT-CLASS-423-650	c44 N77-10636	US-PATENT-CLASS-427-385B	c44 N78-25530
US-PATENT-CLASS-424-3	c51 N77-27677	US-PATENT-CLASS-427-385C	c44 N78-25530
US-PATENT-CLASS-424-12	c25 N79-14169	US-PATENT-CLASS-427-386	c24 N78-27180
US-PATENT-CLASS-424-180	c52 N75-15270	US-PATENT-CLASS-427-387	c74 N78-32854
US-PATENT-CLASS-425-DIG. 43	c31 N75-13111	US-PATENT-CLASS-427-388A	c24 N78-27180
US-PATENT-CLASS-425-288	c31 N74-32917	US-PATENT-CLASS-427-398A	c44 N79-11472
US-PATENT-CLASS-425-35	c31 N74-32917	US-PATENT-CLASS-427-399	c44 N79-11472
US-PATENT-CLASS-425-77	c15 N72-20446	US-PATENT-CLASS-427-402	c27 N76-22377
US-PATENT-CLASS-425-113	c15 N73-13464	US-PATENT-CLASS-427-402	c27 N76-23426
US-PATENT-CLASS-425-128	c31 N74-32920	US-PATENT-CLASS-427-405	c34 N78-18355
US-PATENT-CLASS-425-133	c15 N73-13464	US-PATENT-CLASS-427-419A	c34 N78-18355
US-PATENT-CLASS-425-176	c15 N73-13464	US-PATENT-CLASS-427-423	c34 N78-18355
US-PATENT-CLASS-425-405R	c31 N75-13111	US-PATENT-CLASS-427-426	c27 N76-15310
US-PATENT-CLASS-425-415	c31 N74-32920	US-PATENT-CLASS-427-427	c24 N78-24290
US-PATENT-CLASS-425-438	c31 N75-13111	US-PATENT-CLASS-428-35	c34 N77-18382
US-PATENT-CLASS-425-468	c31 N75-13111	US-PATENT-CLASS-428-71	c24 N78-15180
US-PATENT-CLASS-427-4	c51 N77-27677	US-PATENT-CLASS-428-73	c24 N78-10214
US-PATENT-CLASS-427-34	c34 N78-18355	US-PATENT-CLASS-428-73	c24 N78-15180
US-PATENT-CLASS-427-34	c24 N79-17916	US-PATENT-CLASS-428-73	c24 N79-16915
US-PATENT-CLASS-427-38	c74 N78-32854	US-PATENT-CLASS-428-77	c27 N76-14264
US-PATENT-CLASS-427-40	c27 N78-31233	US-PATENT-CLASS-428-77	c27 N79-12221
US-PATENT-CLASS-427-40	c27 N79-18052	US-PATENT-CLASS-428-93	c34 N78-25350
US-PATENT-CLASS-427-41	c27 N78-31233	US-PATENT-CLASS-428-94	c34 N78-25350
US-PATENT-CLASS-427-41	c74 N78-32854	US-PATENT-CLASS-428-95	c34 N78-25350
US-PATENT-CLASS-427-41	c27 N79-14214	US-PATENT-CLASS-428-96	c34 N78-25350
US-PATENT-CLASS-427-41	c27 N79-18052	US-PATENT-CLASS-428-97	c34 N78-25350
US-PATENT-CLASS-427-44	c74 N78-32854	US-PATENT-CLASS-428-109	c27 N76-14264
US-PATENT-CLASS-427-47	c44 N77-32583	US-PATENT-CLASS-428-109	c33 N79-12331
US-PATENT-CLASS-427-75	c44 N78-25527	US-PATENT-CLASS-428-116	c24 N78-10214
US-PATENT-CLASS-427-75	c44 N79-11468	US-PATENT-CLASS-428-116	c24 N78-17149
US-PATENT-CLASS-427-75	c44 N79-11472	US-PATENT-CLASS-428-117	c37 N76-24575
US-PATENT-CLASS-427-84	c44 N79-11472	US-PATENT-CLASS-428-117	c24 N78-15180
US-PATENT-CLASS-427-86	c44 N76-28635	US-PATENT-CLASS-428-117	c24 N79-16915
US-PATENT-CLASS-427-86	c44 N78-24609	US-PATENT-CLASS-428-119	c24 N79-16915
US-PATENT-CLASS-427-113	c44 N76-28635	US-PATENT-CLASS-428-133	c37 N79-10422
US-PATENT-CLASS-427-113	c44 N78-24609	US-PATENT-CLASS-428-138	c24 N78-10214
US-PATENT-CLASS-427-123	c44 N79-11472	US-PATENT-CLASS-428-141	c24 N77-28225
US-PATENT-CLASS-427-124	c37 N78-13436	US-PATENT-CLASS-428-161	c24 N77-28225
US-PATENT-CLASS-427-126	c37 N78-13436	US-PATENT-CLASS-428-189	c27 N79-12221
US-PATENT-CLASS-427-126	c44 N79-11472	US-PATENT-CLASS-428-212	c27 N76-14264
US-PATENT-CLASS-427-130	c44 N77-32583	US-PATENT-CLASS-428-212	c27 N79-12221
US-PATENT-CLASS-427-160	c34 N77-18382	US-PATENT-CLASS-428-214	c27 N76-14264
US-PATENT-CLASS-427-160	c44 N78-19599	US-PATENT-CLASS-428-247	c33 N79-12331
US-PATENT-CLASS-427-162	c12 N76-15189	US-PATENT-CLASS-428-258	c33 N79-12331
US-PATENT-CLASS-427-164	c27 N78-14164	US-PATENT-CLASS-428-259	c33 N79-12331
US-PATENT-CLASS-427-164	c27 N78-31233	US-PATENT-CLASS-428-280	c27 N79-12221
US-PATENT-CLASS-427-164	c74 N78-32854	US-PATENT-CLASS-428-285	c27 N79-12221
US-PATENT-CLASS-427-196	c27 N76-15310	US-PATENT-CLASS-428-286	c27 N79-12221
US-PATENT-CLASS-427-203	c27 N76-16229	US-PATENT-CLASS-428-290	c24 N78-15180
US-PATENT-CLASS-427-204	c27 N76-16229	US-PATENT-CLASS-428-294	c24 N78-17150
US-PATENT-CLASS-427-205	c27 N76-16229	US-PATENT-CLASS-428-301	c24 N77-27188
US-PATENT-CLASS-427-215	c27 N78-32260	US-PATENT-CLASS-428-302	c24 N78-17150
US-PATENT-CLASS-427-229	c25 N78-10225	US-PATENT-CLASS-428-303	c27 N76-15310
US-PATENT-CLASS-427-230	c37 N76-31524	US-PATENT-CLASS-428-312	c27 N78-32260
US-PATENT-CLASS-427-248	c44 N76-28635	US-PATENT-CLASS-428-313	c24 N78-27180
US-PATENT-CLASS-427-248E	c37 N78-13436	US-PATENT-CLASS-428-325	c27 N78-32260
US-PATENT-CLASS-427-248J	c44 N78-24609	US-PATENT-CLASS-428-328	c24 N77-27188
US-PATENT-CLASS-427-249	c44 N76-28635	US-PATENT-CLASS-428-331	c27 N78-32260
US-PATENT-CLASS-427-249	c44 N78-24609	US-PATENT-CLASS-428-332	c27 N76-22377
US-PATENT-CLASS-427-250	c12 N76-15189	US-PATENT-CLASS-428-332	c27 N76-23426
US-PATENT-CLASS-427-250	c44 N76-28635	US-PATENT-CLASS-428-332	c24 N78-27180
US-PATENT-CLASS-427-250	c37 N78-13436	US-PATENT-CLASS-428-332	c27 N79-12221
US-PATENT-CLASS-427-255	c37 N78-13436	US-PATENT-CLASS-428-334	c74 N78-15879
US-PATENT-CLASS-427-261	c44 N78-25527	US-PATENT-CLASS-428-336	c74 N78-15879
US-PATENT-CLASS-427-261	c44 N79-11472	US-PATENT-CLASS-428-341	c27 N78-32260
US-PATENT-CLASS-427-270	c27 N76-16229	US-PATENT-CLASS-428-368	c24 N77-27188
US-PATENT-CLASS-427-275	c27 N76-16229	US-PATENT-CLASS-428-375	c24 N79-16915
US-PATENT-CLASS-427-287	c27 N76-16229	US-PATENT-CLASS-428-406	c27 N78-32260
US-PATENT-CLASS-427-292	c24 N79-17916	US-PATENT-CLASS-428-411	c27 N78-14164
US-PATENT-CLASS-427-294	c27 N79-14214	US-PATENT-CLASS-428-411	c27 N78-31233
US-PATENT-CLASS-427-302	c74 N78-32854	US-PATENT-CLASS-428-411	c27 N79-14214
US-PATENT-CLASS-427-322	c34 N77-18382	US-PATENT-CLASS-428-412	c27 N76-16230
US-PATENT-CLASS-427-322	c74 N78-32854	US-PATENT-CLASS-428-412	c27 N78-31233
US-PATENT-CLASS-427-327	c24 N79-17916	US-PATENT-CLASS-428-412	c74 N78-32854
US-PATENT-CLASS-427-328	c24 N79-17916	US-PATENT-CLASS-428-412	c27 N79-18052
US-PATENT-CLASS-427-343	c44 N79-11472	US-PATENT-CLASS-428-413	c27 N76-16230
US-PATENT-CLASS-427-355	c24 N79-17916	US-PATENT-CLASS-428-416	c27 N76-14264
US-PATENT-CLASS-427-376	c27 N76-22377	US-PATENT-CLASS-428-418	c24 N77-27188
US-PATENT-CLASS-427-376	c27 N76-23426	US-PATENT-CLASS-428-421	c34 N77-18382
US-PATENT-CLASS-427-376A	c27 N78-32260	US-PATENT-CLASS-428-422	c27 N78-31233
US-PATENT-CLASS-427-376B	c27 N78-32260	US-PATENT-CLASS-428-425	c24 N77-28225
US-PATENT-CLASS-427-376B	c24 N79-17916	US-PATENT-CLASS-428-426	c74 N78-15879

NUMBER INDEX

US-PATENT-CLASS-428-427	c27	N78-32260	US-PATENT-CLASS-526-89	c27	N78-32256
US-PATENT-CLASS-428-428	c27	N76-22377	US-PATENT-CLASS-526-50	c27	N78-32256
US-PATENT-CLASS-428-428	c27	N76-23426	US-PATENT-CLASS-526-193	c27	N78-15276
US-PATENT-CLASS-428-428	c74	N78-15879	US-PATENT-CLASS-526-225	c27	N78-15276
US-PATENT-CLASS-428-428	c27	N78-32260	US-PATENT-CLASS-526-255	c27	N76-24405
US-PATENT-CLASS-428-446	c27	N78-32260	US-PATENT-CLASS-526-275	c27	N78-32256
US-PATENT-CLASS-428-447	c27	N76-14264	US-PATENT-CLASS-526-276	c27	N78-32256
US-PATENT-CLASS-428-447	c27	N76-16230	US-PATENT-CLASS-526-278	c27	N78-32256
US-PATENT-CLASS-428-447	c27	N78-31233	US-PATENT-CLASS-536-56	c27	N77-30236
US-PATENT-CLASS-428-447	c74	N78-32854	US-PATENT-CLASS-536-58	c27	N77-30236
US-PATENT-CLASS-428-447	c27	N79-12221	US-PATENT-CLASS-536-84	c27	N77-30236
US-PATENT-CLASS-428-447	c27	N79-18052	US-PATENT-CLASS-536-85	c27	N77-30236
US-PATENT-CLASS-428-450	c27	N76-16229	US-PATENT-CLASS-536-105	c27	N77-30236
US-PATENT-CLASS-428-450	c27	N76-22377	US-PATENT-CLASS-544-193	c27	N78-15276
US-PATENT-CLASS-428-450	c27	N76-23426	US-PATENT-CLASS-544-195	c27	N78-32256
US-PATENT-CLASS-428-450	c27	N79-12221	US-PATENT-CLASS-788-704	c36	N79-18307
US-PATENT-CLASS-428-451	c27	N79-18052	US-PATENT-CLASS-6554	c35	N77-24455
US-PATENT-CLASS-428-457	c27	N76-16229	US-PATENT-CLASS-6564	c35	N77-24455
US-PATENT-CLASS-428-457	c24	N77-27188			
US-PATENT-CLASS-428-457	c24	N77-28225	US-PATENT-DES-228,688	c05	N74-10907
US-PATENT-CLASS-428-458	c24	N77-28225			
US-PATENT-CLASS-428-458	c24	N79-16915	US-PATENT-RE-26,548	c07	N71-12389
US-PATENT-CLASS-428-461	c34	N77-18382	US-PATENT-RE-28,921	c52	N76-30793
US-PATENT-CLASS-428-469	c27	N76-16229			
US-PATENT-CLASS-428-474	c34	N77-18382	US-PATENT-2,837,706	c15	N71-28952
US-PATENT-CLASS-428-515	c27	N78-31233	US-PATENT-2,898,889	c02	N71-29128
US-PATENT-CLASS-428-522	c27	N78-14164	US-PATENT-2,903,307	c15	N71-29136
US-PATENT-CLASS-428-523	c27	N78-31233	US-PATENT-2,926,123	c33	N71-29151
US-PATENT-CLASS-428-538	c27	N76-22377	US-PATENT-2,934,331	c15	N70-33382
US-PATENT-CLASS-428-538	c27	N76-23426	US-PATENT-2,940,259	c28	N70-33241
US-PATENT-CLASS-428-538	c27	N78-31233	US-PATENT-2,944,316	c15	N71-16076
US-PATENT-CLASS-428-539	c27	N76-16229	US-PATENT-2,945,667	c15	N70-33376
US-PATENT-CLASS-428-633	c34	N78-18355	US-PATENT-2,956,772	c33	N71-29152
US-PATENT-CLASS-428-652	c34	N78-18355	US-PATENT-2,960,002	c14	N70-41946
US-PATENT-CLASS-428-652	c44	N78-19599	US-PATENT-2,971,837	c17	N70-33283
US-PATENT-CLASS-428-667	c34	N78-18355	US-PATENT-2,974,925	c28	N70-33372
US-PATENT-CLASS-428-667	c44	N78-19599	US-PATENT-2,984,735	c11	N70-33329
US-PATENT-CLASS-428-679	c44	N78-19599	US-PATENT-2,991,671	c15	N70-33330
US-PATENT-CLASS-428-902	c24	N77-27188	US-PATENT-2,991,961	c02	N70-33332
US-PATENT-CLASS-428-902	c24	N78-10214	US-PATENT-2,996,212	c31	N71-17680
US-PATENT-CLASS-428-902	c24	N78-17149	US-PATENT-2,997,274	c28	N71-29154
US-PATENT-CLASS-428-911	c27	N76-16230	US-PATENT-3,001,363	c28	N70-33331
US-PATENT-CLASS-428-911	c24	N77-27188	US-PATENT-3,001,395	c14	N70-33386
US-PATENT-CLASS-428-913	c34	N78-25350	US-PATENT-3,001,739	c03	N70-33343
US-PATENT-CLASS-428-920	c27	N76-16230	US-PATENT-3,004,189	c37	N75-29426
US-PATENT-CLASS-428-920	c27	N76-22377	US-PATENT-3,004,735	c14	N70-33322
US-PATENT-CLASS-428-920	c27	N76-23426	US-PATENT-3,005,081	c09	N70-33312
US-PATENT-CLASS-428-920	c24	N78-15180	US-PATENT-3,005,339	c11	N70-33287
US-PATENT-CLASS-428-920	c27	N78-32260	US-PATENT-3,008,229	c15	N70-33311
US-PATENT-CLASS-428-920	c27	N79-12221	US-PATENT-3,010,372	c15	N70-33180
US-PATENT-CLASS-428-921	c27	N76-16230	US-PATENT-3,011,760	c15	N70-33226
US-PATENT-CLASS-428-921	c24	N78-27180	US-PATENT-3,012,400	c28	N70-33374
US-PATENT-CLASS-428-922	c27	N78-14164	US-PATENT-3,012,407	c15	N70-33323
US-PATENT-CLASS-429-13	c44	N79-10513	US-PATENT-3,016,693	c28	N70-33356
US-PATENT-CLASS-429-23	c44	N77-14581	US-PATENT-3,016,863	c12	N70-33305
US-PATENT-CLASS-429-33	c44	N79-17313	US-PATENT-3,022,672	c14	N70-34816
US-PATENT-CLASS-429-34	c44	N77-14581	US-PATENT-3,024,659	c14	N70-34820
US-PATENT-CLASS-429-41	c44	N79-10513	US-PATENT-3,028,122	c02	N70-33286
US-PATENT-CLASS-429-42	c44	N79-10513	US-PATENT-3,028,126	c21	N70-33279
US-PATENT-CLASS-429-101	c44	N79-17313	US-PATENT-3,028,128	c31	N70-33242
US-PATENT-CLASS-429-105	c44	N77-22606	US-PATENT-3,035,333	c28	N70-41818
US-PATENT-CLASS-429-107	c44	N77-22606	US-PATENT-3,038,077	c21	N70-33181
US-PATENT-CLASS-429-190	c44	N77-22606	US-PATENT-3,038,175	c05	N70-33285
US-PATENT-CLASS-429-254	c44	N78-25530	US-PATENT-3,041,587	c14	N70-33179
US-PATENT-CLASS-431-4	c44	N76-29704	US-PATENT-3,041,924	c14	N70-33254
US-PATENT-CLASS-431-7	c34	N78-27357	US-PATENT-3,045,424	c28	N70-40367
US-PATENT-CLASS-431-9	c23	N73-30665	US-PATENT-3,049,876	c28	N70-33284
US-PATENT-CLASS-431-10	c34	N78-27357	US-PATENT-3,053,484	c02	N70-33255
US-PATENT-CLASS-431-10	c25	N79-11151	US-PATENT-3,057,597	c15	N70-33264
US-PATENT-CLASS-431-11	c44	N77-10636	US-PATENT-3,059,220	c09	N70-33182
US-PATENT-CLASS-431-41	c44	N77-10636	US-PATENT-3,063,291	c11	N70-33278
US-PATENT-CLASS-431-116	c44	N77-10636	US-PATENT-3,064,928	c02	N70-33266
US-PATENT-CLASS-431-158	c25	N78-10224	US-PATENT-3,067,573	c28	N70-39899
US-PATENT-CLASS-431-162	c44	N77-10636	US-PATENT-3,068,658	c15	N70-34247
US-PATENT-CLASS-431-163	c44	N76-29704	US-PATENT-3,069,123	c14	N70-39898
US-PATENT-CLASS-431-170	c44	N77-10636	US-PATENT-3,070,330	c21	N70-34539
US-PATENT-CLASS-431-173	c23	N73-30665	US-PATENT-3,070,349	c28	N70-39895
US-PATENT-CLASS-431-202	c25	N74-33378	US-PATENT-3,070,407	c15	N70-39896
US-PATENT-CLASS-431-208	c25	N79-11151	US-PATENT-3,072,574	c18	N70-39897
US-PATENT-CLASS-431-210	c44	N76-29704	US-PATENT-3,076,065	c09	N70-39915
US-PATENT-CLASS-431-328	c34	N78-27357	US-PATENT-3,077,599	c07	N70-40202
US-PATENT-CLASS-431-352	c28	N71-28915	US-PATENT-3,079,113	c02	N70-38009
US-PATENT-CLASS-431-352	c25	N78-10224	US-PATENT-3,080,711	c28	N70-38711
US-PATENT-CLASS-432-29	c25	N79-11151	US-PATENT-3,083,611	c21	N70-35427
US-PATENT-CLASS-432-223	c25	N79-11151	US-PATENT-3,084,421	c17	N70-38490
US-PATENT-CLASS-526-1	c27	N76-24405	US-PATENT-3,085,165	c09	N70-34819
US-PATENT-CLASS-526-13	c27	N78-32256	US-PATENT-3,087,692	c02	N70-34178
US-PATENT-CLASS-526-23	c27	N78-32256	US-PATENT-3,088,441	c15	N70-35409
US-PATENT-CLASS-526-27	c27	N78-32256	US-PATENT-3,090,212	c33	N70-37979

NUMBER INDEX

US-PATENT-3,090,580	.....	c31 N70-37924	US-PATENT-3,173,251	.....	c28 N70-33375
US-PATENT-3,093,000	.....	c15 N70-37925	US-PATENT-3,173,801	.....	c32 N79-19186
US-PATENT-3,093,346	.....	c31 N70-37938	US-PATENT-3,174,278	.....	c25 N70-36946
US-PATENT-3,098,630	.....	c02 N70-37939	US-PATENT-3,174,279	.....	c28 N70-36806
US-PATENT-3,100,294	.....	c09 N70-38998	US-PATENT-3,174,827	.....	c26 N70-36805
US-PATENT-3,100,990	.....	c14 N70-34813	US-PATENT-3,175,789	.....	:31 N70-36654
US-PATENT-3,102,948	.....	c15 N70-34814	US-PATENT-3,176,222	.....	:14 N70-36618
US-PATENT-3,104,079	.....	c31 N70-37986	US-PATENT-3,176,499	.....	c14 N70-35368
US-PATENT-3,104,082	.....	c02 N70-38011	US-PATENT-3,176,933	.....	c33 N70-36617
US-PATENT-3,105,515	.....	c15 N70-38603	US-PATENT-3,177,933	.....	c33 N70-36847
US-PATENT-3,106,603	.....	c09 N70-38201	US-PATENT-3,178,883	.....	c21 N70-36938
US-PATENT-3,108,171	.....	c33 N70-34812	US-PATENT-3,180,264	.....	c33 N70-36846
US-PATENT-3,110,318	.....	c12 N70-38997	US-PATENT-3,180,587	.....	c21 N70-36943
US-PATENT-3,112,672	.....	c11 N70-38202	US-PATENT-3,181,821	.....	c31 N70-36845
US-PATENT-3,115,630	.....	c31 N70-37981	US-PATENT-3,182,496	.....	c11 N70-36913
US-PATENT-3,118,100	.....	c03 N71-29129	US-PATENT-3,183,506	.....	c07 N70-36911
US-PATENT-3,119,232	.....	c28 N70-37980	US-PATENT-3,184,915	.....	c22 N70-34241
US-PATENT-3,120,101	.....	c28 N70-34860	US-PATENT-3,185,023	.....	c14 N70-34298
US-PATENT-3,120,361	.....	c31 N70-38010	US-PATENT-3,187,583	.....	c11 N70-38675
US-PATENT-3,120,738	.....	c28 N70-38249	US-PATENT-3,188,472	.....	c21 N70-34297
US-PATENT-3,121,309	.....	c28 N70-35381	US-PATENT-3,188,844	.....	c15 N70-34249
US-PATENT-3,122,000	.....	c15 N70-38020	US-PATENT-3,189,299	.....	c21 N70-34295
US-PATENT-3,122,098	.....	c28 N70-38181	US-PATENT-3,189,535	.....	c15 N70-34967
US-PATENT-3,122,885	.....	c28 N70-38710	US-PATENT-3,189,726	.....	c33 N70-34545
US-PATENT-3,123,248	.....	c11 N70-38182	US-PATENT-3,189,784	.....	c33 N75-27250
US-PATENT-3,127,157	.....	c15 N70-38225	US-PATENT-3,189,794	.....	c09 N70-34502
US-PATENT-3,128,389	.....	c09 N70-38604	US-PATENT-3,189,864	.....	c09 N70-34596
US-PATENT-3,128,845	.....	c15 N70-38601	US-PATENT-3,191,316	.....	c31 N70-34966
US-PATENT-3,130,940	.....	c33 N70-33344	US-PATENT-3,191,379	.....	c27 N70-35534
US-PATENT-3,131,040	.....	c37 N79-21345	US-PATENT-3,191,907	.....	c15 N70-34859
US-PATENT-3,132,342	.....	c07 N70-38200	US-PATENT-3,192,730	.....	c06 N70-34946
US-PATENT-3,132,476	.....	c28 N70-34294	US-PATENT-3,193,883	.....	c27 N70-34783
US-PATENT-3,132,479	.....	c15 N71-28951	US-PATENT-3,194,060	.....	c14 N70-34794
US-PATENT-3,132,903	.....	c15 N70-38620	US-PATENT-3,194,525	.....	c11 N70-35383
US-PATENT-3,135,089	.....	c28 N70-38504	US-PATENT-3,194,951	.....	c08 N70-34778
US-PATENT-3,135,090	.....	c28 N70-38505	US-PATENT-3,196,261	.....	c08 N70-34787
US-PATENT-3,136,123	.....	c28 N70-38199	US-PATENT-3,196,362	.....	c09 N70-35440
US-PATENT-3,137,082	.....	c09 N73-14215	US-PATENT-3,196,557	.....	c11 N70-34815
US-PATENT-3,138,837	.....	c17 N70-38198	US-PATENT-3,196,558	.....	c14 N70-35394
US-PATENT-3,139,725	.....	c28 N70-38645	US-PATENT-3,196,598	.....	c28 N70-34788
US-PATENT-3,140,728	.....	c15 N70-36908	US-PATENT-3,196,675	.....	c14 N70-34818
US-PATENT-3,141,340	.....	c11 N70-38196	US-PATENT-3,196,690	.....	c11 N70-34786
US-PATENT-3,141,769	.....	c28 N70-38197	US-PATENT-3,197,616	.....	c14 N71-28958
US-PATENT-3,141,932	.....	c03 N70-38713	US-PATENT-3,198,709	.....	c22 N70-34501
US-PATENT-3,143,321	.....	c15 N70-34850	US-PATENT-3,198,955	.....	c08 N70-34743
US-PATENT-3,143,651	.....	c14 N70-40240	US-PATENT-3,198,994	.....	c26 N73-28710
US-PATENT-3,144,219	.....	c31 N70-38676	US-PATENT-3,199,340	.....	c14 N70-34799
US-PATENT-3,144,999	.....	c02 N70-34856	US-PATENT-3,199,343	.....	c11 N70-34844
US-PATENT-3,145,874	.....	c11 N71-15960	US-PATENT-3,199,931	.....	c15 N70-34664
US-PATENT-3,147,422	.....	c09 N70-38712	US-PATENT-3,200,706	.....	c03 N70-34667
US-PATENT-3,149,897	.....	c09 N70-36494	US-PATENT-3,201,560	.....	c33 N70-34540
US-PATENT-3,150,329	.....	c09 N70-38995	US-PATENT-3,201,635	.....	c25 N70-34661
US-PATENT-3,150,387	.....	c03 N70-36778	US-PATENT-3,201,980	.....	c14 N70-40203
US-PATENT-3,152,344	.....	c05 N70-36493	US-PATENT-3,202,381	.....	c31 N70-34176
US-PATENT-3,155,992	.....	c05 N70-34857	US-PATENT-3,202,398	.....	c28 N71-28928
US-PATENT-3,156,090	.....	c28 N70-37245	US-PATENT-3,202,582	.....	c22 N70-34572
US-PATENT-3,157,529	.....	c18 N70-36400	US-PATENT-3,202,844	.....	c03 N70-34134
US-PATENT-3,158,172	.....	c15 N70-34817	US-PATENT-3,202,915	.....	c14 N70-38602
US-PATENT-3,158,336	.....	c31 N70-36410	US-PATENT-3,202,998	.....	c31 N70-34135
US-PATENT-3,158,764	.....	c03 N70-36803	US-PATENT-3,204,447	.....	c14 N70-34156
US-PATENT-3,159,967	.....	c28 N70-36802	US-PATENT-3,204,889	.....	c03 N70-34157
US-PATENT-3,160,567	.....	c14 N70-36808	US-PATENT-3,205,141	.....	c14 N70-34669
US-PATENT-3,160,825	.....	c14 N70-35220	US-PATENT-3,205,361	.....	c14 N70-34158
US-PATENT-3,160,950	.....	c15 N70-36409	US-PATENT-3,205,362	.....	c21 N70-35089
US-PATENT-3,162,012	.....	c15 N70-36411	US-PATENT-3,205,381	.....	c03 N70-35408
US-PATENT-3,163,935	.....	c14 N70-36907	US-PATENT-3,206,141	.....	c21 N70-35395
US-PATENT-3,164,222	.....	c15 N70-34861	US-PATENT-3,206,897	.....	c18 N75-27040
US-PATENT-3,164,369	.....	c15 N70-36412	US-PATENT-3,208,215	.....	c28 N70-34162
US-PATENT-3,165,356	.....	c05 N70-35152	US-PATENT-3,208,272	.....	c14 N70-34161
US-PATENT-3,166,834	.....	c15 N70-36901	US-PATENT-3,208,694	.....	c02 N70-34160
US-PATENT-3,167,426	.....	c17 N70-36616	US-PATENT-3,208,707	.....	c31 N70-34159
US-PATENT-3,168,827	.....	c14 N70-36807	US-PATENT-3,209,360	.....	c09 N70-35219
US-PATENT-3,169,001	.....	c02 N70-36825	US-PATENT-3,209,361	.....	c09 N70-35425
US-PATENT-3,169,613	.....	c15 N70-36947	US-PATENT-3,210,927	.....	c28 N70-34175
US-PATENT-3,169,725	.....	c31 N70-38296	US-PATENT-3,211,169	.....	c15 N70-35087
US-PATENT-3,170,286	.....	c15 N70-36535	US-PATENT-3,211,414	.....	c15 N70-35407
US-PATENT-3,170,290	.....	c28 N70-36910	US-PATENT-3,212,096	.....	c09 N70-35382
US-PATENT-3,170,295	.....	c27 N71-28929	US-PATENT-3,212,259	.....	c28 N71-29153
US-PATENT-3,170,324	.....	c14 N70-36824	US-PATENT-3,212,325	.....	c14 N70-34705
US-PATENT-3,170,471	.....	c32 N70-36536	US-PATENT-3,212,564	.....	c33 N71-29052
US-PATENT-3,170,486	.....	c15 N70-36492	US-PATENT-3,215,313	.....	c31 N79-21225
US-PATENT-3,170,605	.....	c15 N70-38996	US-PATENT-3,215,572	.....	c12 N70-40124
US-PATENT-3,170,657	.....	c02 N70-34858	US-PATENT-3,215,842	.....	c16 N71-28963
US-PATENT-3,170,660	.....	c02 N70-36804	US-PATENT-3,216,007	.....	c08 N70-40125
US-PATENT-3,170,773	.....	c17 N70-33288	US-PATENT-3,217,624	.....	c14 N70-40273
US-PATENT-3,171,060	.....	c25 N70-33267	US-PATENT-3,218,479	.....	c09 N70-40272
US-PATENT-3,171,081	.....	c14 N70-35666	US-PATENT-3,218,547	.....	c09 N70-40123
US-PATENT-3,172,097	.....	c08 N70-35423	US-PATENT-3,218,850	.....	c14 N70-40400
US-PATENT-3,173,246	.....	c28 N70-33265	US-PATENT-3,219,250	.....	c15 N70-40204

NUMBER INDEX

US-PATENT-3,219,365	c15 N71-28937	US-PATENT-3,271,594	c10 N71-28739
US-PATENT-3,219,997	c08 N73-28045	US-PATENT-3,271,620	c09 N71-12540
US-PATENT-3,220,004	c30 N70-40309	US-PATENT-3,271,637	c26 N71-18064
US-PATENT-3,221,547	c14 N70-40201	US-PATENT-3,271,649	c10 N71-16030
US-PATENT-3,221,549	c14 N70-40157	US-PATENT-3,273,094	c23 N71-29049
US-PATENT-3,223,374	c15 N70-40156	US-PATENT-3,273,355	c33 N71-17897
US-PATENT-3,224,001	c07 N70-40063	US-PATENT-3,273,381	c32 N71-17685
US-PATENT-3,224,173	c15 N70-40062	US-PATENT-3,273,388	c09 N71-16086
US-PATENT-3,224,263	c15 N70-40180	US-PATENT-3,273,392	c23 N71-17802
US-PATENT-3,224,336	c30 N70-40353	US-PATENT-3,273,399	c12 N71-24692
US-PATENT-3,224,337	c09 N79-21084	US-PATENT-3,274,304	c26 N71-17818
US-PATENT-3,228,492	c15 N70-40354	US-PATENT-3,275,794	c37 N75-27376
US-PATENT-3,228,558	c14 N70-40233	US-PATENT-3,276,251	c11 N71-15926
US-PATENT-3,229,099	c14 N70-40238	US-PATENT-3,276,376	c31 N71-17629
US-PATENT-3,229,102	c14 N70-40239	US-PATENT-3,276,602	c32 N71-17609
US-PATENT-3,229,139	c28 N70-39925	US-PATENT-3,276,679	c15 N71-16079
US-PATENT-3,229,155	c25 N70-41628	US-PATENT-3,276,722	c02 N71-16087
US-PATENT-3,229,463	c28 N70-39931	US-PATENT-3,276,726	c31 N71-16081
US-PATENT-3,229,568	c14 N70-40003	US-PATENT-3,276,865	c17 N71-16025
US-PATENT-3,229,636	c03 N70-39930	US-PATENT-3,276,866	c17 N71-16026
US-PATENT-3,229,682	c09 N70-40234	US-PATENT-3,276,946	c23 N71-15978
US-PATENT-3,229,689	c05 N70-39922	US-PATENT-3,277,314	c10 N71-16042
US-PATENT-3,229,884	c15 N70-39924	US-PATENT-3,277,366	c10 N71-16057
US-PATENT-3,229,905	c04 N78-17031	US-PATENT-3,277,373	c07 N71-16088
US-PATENT-3,229,930	c30 N70-40016	US-PATENT-3,277,375	c07 N71-11284
US-PATENT-3,230,053	c26 N70-40015	US-PATENT-3,277,458	c10 N71-16058
US-PATENT-3,236,066	c15 N71-28959	US-PATENT-3,277,486	c31 N71-10747
US-PATENT-3,237,253	c15 N71-15966	US-PATENT-3,279,193	c33 N71-28852
US-PATENT-3,238,345	c11 N71-15925	US-PATENT-3,281,558	c33 N75-27249
US-PATENT-3,238,413	c25 N71-29184	US-PATENT-3,281,963	c11 N71-10746
US-PATENT-3,238,715	c28 N71-14043	US-PATENT-3,281,964	c11 N71-10776
US-PATENT-3,238,730	c03 N71-12260	US-PATENT-3,281,965	c11 N71-10768
US-PATENT-3,238,774	c14 N71-14996	US-PATENT-3,282,035	c11 N71-10777
US-PATENT-3,238,777	c14 N71-15598	US-PATENT-3,282,091	c14 N71-10781
US-PATENT-3,239,660	c23 N71-30292	US-PATENT-3,282,532	c31 N71-17729
US-PATENT-3,242,716	c14 N71-15992	US-PATENT-3,282,541	c31 N71-24750
US-PATENT-3,243,154	c23 N71-15673	US-PATENT-3,282,739	c03 N71-11053
US-PATENT-3,243,791	c07 N71-11298	US-PATENT-3,282,740	c03 N71-11051
US-PATENT-3,244,943	c15 N73-28516	US-PATENT-3,283,088	c10 N71-15909
US-PATENT-3,249,012	c03 N71-12258	US-PATENT-3,283,175	c10 N71-15910
US-PATENT-3,249,013	c03 N71-12259	US-PATENT-3,283,241	c14 N71-16014
US-PATENT-3,251,053	c08 N71-12501	US-PATENT-3,286,274	c05 N71-12335
US-PATENT-3,252,100	c10 N71-28960	US-PATENT-3,286,531	c30 N71-17788
US-PATENT-3,254,395	c28 N71-15658	US-PATENT-3,286,629	c31 N71-17730
US-PATENT-3,254,487	c28 N71-15659	US-PATENT-3,286,630	c31 N71-10582
US-PATENT-3,257,780	c15 N71-15968	US-PATENT-3,286,882	c27 N71-29155
US-PATENT-3,258,582	c02 N71-13421	US-PATENT-3,286,953	c21 N70-41856
US-PATENT-3,258,687	c14 N71-15962	US-PATENT-3,286,957	c02 N70-41863
US-PATENT-3,258,831	c15 N71-15986	US-PATENT-3,287,031	c15 N70-41808
US-PATENT-3,258,912	c27 N71-15634	US-PATENT-3,287,174	c03 N70-41864
US-PATENT-3,258,918	c27 N71-15635	US-PATENT-3,287,496	c14 N70-41807
US-PATENT-3,260,055	c23 N71-15467	US-PATENT-3,287,582	c28 N70-41576
US-PATENT-3,260,204	c31 N71-15692	US-PATENT-3,287,640	c09 N70-41655
US-PATENT-3,260,326	c11 N71-28779	US-PATENT-3,287,660	c16 N70-41578
US-PATENT-3,261,210	c14 N71-15969	US-PATENT-3,287,725	c07 N70-41680
US-PATENT-3,262,025	c15 N73-32361	US-PATENT-3,289,205	c07 N70-41678
US-PATENT-3,262,186	c15 N71-16052	US-PATENT-3,295,360	c14 N70-41681
US-PATENT-3,262,262	c28 N71-15661	US-PATENT-3,295,366	c11 N70-41677
US-PATENT-3,262,351	c15 N71-15922	US-PATENT-3,295,377	c14 N70-41682
US-PATENT-3,262,365	c31 N71-15675	US-PATENT-3,295,386	c05 N70-41581
US-PATENT-3,262,395	c15 N71-30028	US-PATENT-3,295,512	c03 N70-41580
US-PATENT-3,262,518	c05 N71-11199	US-PATENT-3,295,545	c15 N70-41646
US-PATENT-3,262,655	c31 N71-15663	US-PATENT-3,295,556	c32 N70-41579
US-PATENT-3,262,694	c44 N79-19447	US-PATENT-3,295,684	c28 N70-41447
US-PATENT-3,263,016	c33 N71-15625	US-PATENT-3,295,699	c32 N70-41367
US-PATENT-3,263,171	c09 N71-13530	US-PATENT-3,295,782	c14 N70-41647
US-PATENT-3,263,610	c15 N71-13789	US-PATENT-3,295,790	c31 N70-41588
US-PATENT-3,264,135	c15 N71-16075	US-PATENT-3,295,798	c02 N70-41589
US-PATENT-3,270,441	c11 N71-16028	US-PATENT-3,295,808	c15 N70-41310
US-PATENT-3,270,499	c28 N71-15660	US-PATENT-3,296,060	c18 N70-41583
US-PATENT-3,270,501	c31 N71-15647	US-PATENT-3,296,526	c14 N70-41332
US-PATENT-3,270,503	c33 N71-15623	US-PATENT-3,296,531	c07 N70-41331
US-PATENT-3,270,504	c31 N71-15637	US-PATENT-3,298,175	c33 N71-29053
US-PATENT-3,270,505	c21 N71-15582	US-PATENT-3,298,182	c28 N70-41311
US-PATENT-3,270,512	c15 N71-15906	US-PATENT-3,298,221	c14 N70-41330
US-PATENT-3,270,565	c14 N71-30265	US-PATENT-3,298,285	c32 N70-41370
US-PATENT-3,270,756	c15 N71-15967	US-PATENT-3,298,362	c05 N70-41329
US-PATENT-3,270,802	c33 N71-24876	US-PATENT-3,298,582	c14 N71-28935
US-PATENT-3,270,835	c28 N70-41582	US-PATENT-3,299,364	c16 N71-15550
US-PATENT-3,270,908	c31 N71-15664	US-PATENT-3,299,431	c07 N71-28979
US-PATENT-3,270,985	c21 N71-15583	US-PATENT-3,299,913	c15 N71-15918
US-PATENT-3,270,986	c05 N71-12336	US-PATENT-3,300,162	c31 N70-41373
US-PATENT-3,270,988	c01 N71-13410	US-PATENT-3,300,717	c25 N71-15650
US-PATENT-3,270,989	c02 N71-11041	US-PATENT-3,300,731	c07 N70-41372
US-PATENT-3,270,990	c28 N71-15563	US-PATENT-3,300,847	c15 N70-41371
US-PATENT-3,271,140	c17 N71-15644	US-PATENT-3,300,949	c05 N70-41297
US-PATENT-3,271,181	c15 N71-16077	US-PATENT-3,300,981	c28 N70-41275
US-PATENT-3,271,532	c09 N71-16089	US-PATENT-3,301,046	c14 N70-41366
US-PATENT-3,271,558	c15 N71-15871	US-PATENT-3,301,315	c09 N70-41717

NUMBER INDEX

US-PATENT-3,301,507	c31 N70-41631	US-PATENT-3,326,407	c15 N71-10577
US-PATENT-3,301,511	c02 N70-41630	US-PATENT-3,327,298	c08 N71-21042
US-PATENT-3,301,578	c15 N70-41629	US-PATENT-3,327,991	c15 N71-21234
US-PATENT-3,302,023	c14 N70-41676	US-PATENT-3,328,624	c28 N71-28850
US-PATENT-3,302,040	c09 N70-41675	US-PATENT-3,329,375	c21 N71-21708
US-PATENT-3,302,569	c15 N70-41679	US-PATENT-3,329,918	c09 N71-21583
US-PATENT-3,302,633	c05 N70-41819	US-PATENT-3,330,052	c11 N71-21474
US-PATENT-3,302,662	c15 N70-41811	US-PATENT-3,330,082	c15 N71-21531
US-PATENT-3,302,960	c15 N70-41829	US-PATENT-3,330,510	c31 N71-28851
US-PATENT-3,303,304	c14 N70-41812	US-PATENT-3,330,549	c15 N71-21530
US-PATENT-3,304,028	c31 N70-41855	US-PATENT-3,331,071	c07 N71-28900
US-PATENT-3,304,718	c28 N70-41922	US-PATENT-3,331,246	c11 N71-21475
US-PATENT-3,304,724	c31 N70-41948	US-PATENT-3,331,255	c15 N71-21529
US-PATENT-3,304,729	c31 N70-41871	US-PATENT-3,331,404	c12 N71-21089
US-PATENT-3,304,768	c32 N70-42003	US-PATENT-3,331,951	c21 N71-21688
US-PATENT-3,304,773	c14 N70-41957	US-PATENT-3,333,152	c25 N71-21693
US-PATENT-3,304,799	c03 N70-41954	US-PATENT-3,333,788	c31 N71-21881
US-PATENT-3,304,865	c28 N70-41967	US-PATENT-3,334,225	c14 N73-32325
US-PATENT-3,305,415	c27 N70-41897	US-PATENT-3,336,725	c15 N71-21528
US-PATENT-3,305,636	c08 N70-41961	US-PATENT-3,336,748	c25 N71-21694
US-PATENT-3,305,801	c10 N70-41964	US-PATENT-3,336,754	c28 N71-22983
US-PATENT-3,305,810	c09 N70-41929	US-PATENT-3,337,004	c14 N71-23092
US-PATENT-3,305,861	c21 N70-41930	US-PATENT-3,337,279	c05 N71-23080
US-PATENT-3,305,870	c07 N71-15907	US-PATENT-3,337,315	c18 N71-23088
US-PATENT-3,306,134	c37 N78-17385	US-PATENT-3,337,337	c18 N71-22894
US-PATENT-3,308,848	c12 N71-16031	US-PATENT-3,337,790	c12 N71-20896
US-PATENT-3,309,012	c33 N71-17610	US-PATENT-3,337,812	c09 N71-23097
US-PATENT-3,309,961	c15 N71-16078	US-PATENT-3,339,404	c14 N71-22765
US-PATENT-3,310,054	c08 N71-15908	US-PATENT-3,339,863	c14 N71-23040
US-PATENT-3,310,138	c12 N71-16894	US-PATENT-3,340,099	c03 N71-23006
US-PATENT-3,310,256	c31 N71-17679	US-PATENT-3,340,395	c14 N71-23041
US-PATENT-3,310,258	c31 N71-17691	US-PATENT-3,340,397	c11 N71-23042
US-PATENT-3,310,261	c02 N71-11038	US-PATENT-3,340,430	c09 N71-22796
US-PATENT-3,310,262	c02 N71-12243	US-PATENT-3,340,532	c10 N71-21473
US-PATENT-3,310,443	c24 N71-10560	US-PATENT-3,340,599	c09 N71-23027
US-PATENT-3,310,699	c14 N73-32324	US-PATENT-3,340,713	c15 N71-22723
US-PATENT-3,310,765	c33 N79-21264	US-PATENT-3,340,732	c02 N71-23007
US-PATENT-3,310,978	c14 N71-10616	US-PATENT-3,341,151	c31 N71-23009
US-PATENT-3,310,980	c11 N71-10604	US-PATENT-3,341,169	c15 N71-23024
US-PATENT-3,311,315	c07 N71-10609	US-PATENT-3,341,708	c16 N71-22895
US-PATENT-3,311,502	c03 N71-10608	US-PATENT-3,341,778	c07 N71-23098
US-PATENT-3,311,510	c26 N71-10607	US-PATENT-3,341,977	c15 N71-22705
US-PATENT-3,311,571	c27 N79-21190	US-PATENT-3,342,055	c15 N71-22797
US-PATENT-3,311,748	c21 N71-10678	US-PATENT-3,342,066	c11 N71-23030
US-PATENT-3,311,772	c09 N71-10618	US-PATENT-3,342,653	c15 N71-22713
US-PATENT-3,311,832	c07 N71-10775	US-PATENT-3,343,180	c05 N71-23159
US-PATENT-3,312,101	c14 N71-10774	US-PATENT-3,343,189	c05 N71-22748
US-PATENT-3,313,204	c28 N73-24783	US-PATENT-3,344,340	c09 N71-21449-21
US-PATENT-3,316,716	c28 N71-10780	US-PATENT-3,344,425	c10 N71-21483-26
US-PATENT-3,316,752	c14 N71-10779	US-PATENT-3,345,820	c28 N71-21822-27
US-PATENT-3,316,991	c14 N71-10773	US-PATENT-3,345,822	c27 N71-21819
US-PATENT-3,317,180	c15 N71-10778	US-PATENT-3,345,840	c15 N71-21536
US-PATENT-3,317,341	c18 N71-10772	US-PATENT-3,345,866	c11 N71-21481
US-PATENT-3,317,352	c03 N71-10728	US-PATENT-3,346,419	c03 N71-20895
US-PATENT-3,317,641	c15 N71-10672	US-PATENT-3,346,442	c18 N71-21651
US-PATENT-3,317,731	c21 N71-10771	US-PATENT-3,346,515	c06 N71-20905
US-PATENT-3,317,751	c09 N71-10673	US-PATENT-3,346,724	c15 N71-21179
US-PATENT-3,317,797	c10 N71-28783	US-PATENT-3,346,806	c14 N71-21090
US-PATENT-3,317,832	c09 N71-10659	US-PATENT-3,346,929	c15 N71-21076
US-PATENT-3,318,093	c15 N71-10658	US-PATENT-3,347,046	c33 N71-21507
US-PATENT-3,318,096	c28 N71-28849	US-PATENT-3,347,309	c33 N71-29046
US-PATENT-3,318,343	c15 N71-10809	US-PATENT-3,347,465	c18 N71-21068
US-PATENT-3,318,622	c15 N71-10799	US-PATENT-3,347,466	c28 N71-21493
US-PATENT-3,319,175	c09 N71-10798	US-PATENT-3,347,531	c15 N71-21177
US-PATENT-3,319,979	c15 N71-10782	US-PATENT-3,347,665	c17 N71-20743
US-PATENT-3,320,669	c15 N70-42017	US-PATENT-3,348,048	c14 N71-21088
US-PATENT-3,321,034	c15 N70-42034	US-PATENT-3,348,053	c10 N71-20782
US-PATENT-3,321,154	c31 N70-42075	US-PATENT-3,348,152	c10 N71-20841
US-PATENT-3,321,157	c02 N70-42016	US-PATENT-3,348,218	c10 N71-29135
US-PATENT-3,321,159	c31 N70-42015	US-PATENT-3,349,814	c33 N71-20834
US-PATENT-3,321,570	c15 N70-41960	US-PATENT-3,350,033	c14 N71-21082
US-PATENT-3,321,628	c10 N70-41991	US-PATENT-3,350,034	c31 N71-21064
US-PATENT-3,321,645	c10 N70-42032	US-PATENT-3,350,214	c17 N71-20941
US-PATENT-3,321,922	c28 N70-41992	US-PATENT-3,350,643	c07 N71-20791
US-PATENT-3,323,356	c15 N70-41993	US-PATENT-3,350,671	c09 N71-20842
US-PATENT-3,323,362	c14 N70-41994	US-PATENT-3,350,926	c14 N71-21091
US-PATENT-3,323,370	c05 N70-42000	US-PATENT-3,352,157	c14 N71-21072
US-PATENT-3,323,386	c03 N70-42073	US-PATENT-3,352,192	c15 N71-21489
US-PATENT-3,323,408	c14 N70-41955	US-PATENT-3,353,359	c28 N71-20942
US-PATENT-3,323,484	c14 N70-42074	US-PATENT-3,354,098	c06 N71-20717
US-PATENT-3,323,967	c15 N70-42033	US-PATENT-3,354,320	c23 N71-21821
US-PATENT-3,324,370	c09 N71-10677	US-PATENT-3,354,462	c14 N71-21006
US-PATENT-3,324,388	c14 N71-10797	US-PATENT-3,355,861	c18 N71-20742
US-PATENT-3,324,423	c07 N71-10676	US-PATENT-3,355,948	c14 N71-21007
US-PATENT-3,324,659	c28 N71-10574	US-PATENT-3,356,320	c05 N71-20718
US-PATENT-3,325,229	c15 N71-10617	US-PATENT-3,356,549	c15 N71-21404
US-PATENT-3,325,723	c10 N71-10578	US-PATENT-3,356,885	c25 N71-20747
US-PATENT-3,325,749	c09 N71-28810	US-PATENT-3,356,917	c33 N79-21265
US-PATENT-3,326,043	c14 N71-10500	US-PATENT-3,357,024	c12 N71-20815

NUMBER INDEX

US-PATENT-3,357,093	c15 N71-21078	US-PATENT-3,384,016	c31 N71-23008
US-PATENT-3,357,237	c33 N71-21586	US-PATENT-3,384,075	c05 N71-22896
US-PATENT-3,357,862	c03 N71-20904	US-PATENT-3,384,111	c15 N71-22706
US-PATENT-3,358,145	c14 N71-21040	US-PATENT-3,384,324	c33 N71-22792
US-PATENT-3,358,264	c09 N71-20851	US-PATENT-3,384,820	c09 N71-23021
US-PATENT-3,359,046	c15 N71-20739	US-PATENT-3,384,895	c07 N71-22984
US-PATENT-3,359,132	c09 N71-20705	US-PATENT-3,385,036	c15 N71-22721
US-PATENT-3,359,409	c07 N71-21476	US-PATENT-3,386,337	c15 N71-22799
US-PATENT-3,359,435	c15 N71-21311	US-PATENT-3,386,685	c31 N71-22968
US-PATENT-3,359,555	c09 N71-20864	US-PATENT-3,386,686	c31 N71-22969
US-PATENT-3,359,568	c54 N78-17680	US-PATENT-3,387,149	c14 N71-22993
US-PATENT-3,359,819	c15 N71-21744	US-PATENT-3,387,218	c37 N78-17386
US-PATENT-3,359,855	c23 N71-21882	US-PATENT-3,388,258	c14 N71-22996
US-PATENT-3,360,798	c09 N71-20658	US-PATENT-3,388,387	c10 N71-23033
US-PATENT-3,360,864	c14 N71-24693	US-PATENT-3,388,590	c14 N71-23087
US-PATENT-3,360,972	c15 N71-24833	US-PATENT-3,389,017	c15 N71-23022
US-PATENT-3,360,980	c14 N71-20741	US-PATENT-3,389,260	c14 N71-23269
US-PATENT-3,360,988	c09 N71-20816	US-PATENT-3,389,346	c10 N71-28859
US-PATENT-3,361,045	c15 N71-21060	US-PATENT-3,389,877	c15 N71-28936
US-PATENT-3,361,067	c26 N71-21824	US-PATENT-3,390,528	c20 N79-21124
US-PATENT-3,361,400	c15 N71-20813	US-PATENT-3,390,017	c03 N71-23336
US-PATENT-3,361,666	c15 N71-21403	US-PATENT-3,390,020	c26 N71-23654
US-PATENT-3,361,985	c10 N71-20852	US-PATENT-3,390,023	c26 N75-29236
US-PATENT-3,364,311	c07 N71-20814	US-PATENT-3,390,282	c09 N71-23311
US-PATENT-3,364,366	c09 N71-28926	US-PATENT-3,390,378	c08 N71-23295
US-PATENT-3,364,578	c14 N71-21079	US-PATENT-3,391,080	c15 N71-24046
US-PATENT-3,364,631	c32 N71-21045	US-PATENT-3,392,403	c23 N71-23976
US-PATENT-3,364,777	c15 N71-20740	US-PATENT-3,392,586	c14 N71-24232
US-PATENT-3,364,813	c09 N71-22999	US-PATENT-3,392,864	c18 N71-23658
US-PATENT-3,365,657	c10 N71-22961	US-PATENT-3,392,865	c15 N71-23816
US-PATENT-3,365,665	c14 N71-23037	US-PATENT-3,392,936	c01 N71-23497
US-PATENT-3,365,897	c33 N71-28892	US-PATENT-3,393,059	c06 N71-23499
US-PATENT-3,365,930	c14 N71-22964	US-PATENT-3,393,330	c22 N71-23599
US-PATENT-3,365,941	c14 N71-22965	US-PATENT-3,393,332	c09 N71-23443
US-PATENT-3,366,886	c10 N71-22962	US-PATENT-3,393,347	c10 N71-23543
US-PATENT-3,366,894	c10 N71-23084	US-PATENT-3,393,380	c10 N71-23544
US-PATENT-3,367,114	c28 N71-23081	US-PATENT-3,393,384	c09 N71-23573
US-PATENT-3,367,121	c15 N71-23025	US-PATENT-3,394,286	c14 N73-30391
US-PATENT-3,367,182	c33 N71-23085	US-PATENT-3,394,359	c08 N71-28925
US-PATENT-3,367,224	c15 N71-22798	US-PATENT-3,394,975	c23 N71-30027
US-PATENT-3,367,271	c15 N71-24042	US-PATENT-3,395,053	c18 N71-23047
US-PATENT-3,367,308	c11 N71-22875	US-PATENT-3,395,565	c14 N73-30390
US-PATENT-3,367,445	c15 N71-23048	US-PATENT-3,396,057	c26 N71-23043
US-PATENT-3,368,486	c15 N71-22874	US-PATENT-3,396,184	c06 N71-28808
US-PATENT-3,369,222	c08 N71-22707	US-PATENT-3,396,303	c09 N71-22987
US-PATENT-3,369,223	c08 N71-22710	US-PATENT-3,396,584	c14 N71-30026
US-PATENT-3,369,564	c15 N71-23051	US-PATENT-3,396,719	c52 N79-21750
US-PATENT-3,370,039	c06 N71-28807	US-PATENT-3,396,920	c31 N71-29050
US-PATENT-3,372,588	c33 N71-29051	US-PATENT-3,397,094	c26 N71-29156
US-PATENT-3,373,016	c26 N75-27127	US-PATENT-3,397,117	c15 N71-23086
US-PATENT-3,373,069	c15 N71-23052	US-PATENT-3,397,318	c14 N71-22991
US-PATENT-3,373,404	c08 N71-22749	US-PATENT-3,397,512	c15 N71-23023
US-PATENT-3,373,430	c09 N71-22888	US-PATENT-3,397,537	c20 N79-21125
US-PATENT-3,373,431	c07 N71-22750	US-PATENT-3,397,932	c15 N71-22982
US-PATENT-3,373,640	c15 N71-22722	US-PATENT-3,399,299	c10 N71-23662
US-PATENT-3,373,914	c15 N71-23050	US-PATENT-3,399,574	c32 N71-24285
US-PATENT-3,374,339	c08 N71-22897	US-PATENT-3,402,265	c09 N73-28084
US-PATENT-3,374,366	c09 N71-23015	US-PATENT-3,404,289	c09 N71-23545
US-PATENT-3,374,830	c33 N71-22890	US-PATENT-3,404,348	c32 N74-22096
US-PATENT-3,375,451	c10 N71-22986	US-PATENT-3,405,406	c05 N71-23167
US-PATENT-3,375,479	c15 N71-23049	US-PATENT-3,405,887	c31 N71-24315
US-PATENT-3,375,712	c35 N75-29382	US-PATENT-3,406,336	c10 N71-24863
US-PATENT-3,375,885	c15 N73-32362	US-PATENT-3,406,742	c33 N71-24276
US-PATENT-3,376,730	c14 N71-22995	US-PATENT-3,407,304	c14 N71-23240
US-PATENT-3,377,208	c14 N71-23039	US-PATENT-3,408,816	c28 N71-24736
US-PATENT-3,377,845	c14 N71-22992	US-PATENT-3,408,870	c14 N71-23227
US-PATENT-3,378,315	c15 N71-22997	US-PATENT-3,409,247	c33 N71-28903
US-PATENT-3,378,851	c05 N71-23096	US-PATENT-3,409,252	c15 N71-23255
US-PATENT-3,378,892	c15 N71-22994	US-PATENT-3,409,554	c26 N71-23292
US-PATENT-3,379,052	c14 N73-32321	US-PATENT-3,409,730	c33 N71-24145
US-PATENT-3,379,064	c14 N71-23093	US-PATENT-3,411,356	c18 N71-23226
US-PATENT-3,379,330	c23 N71-22881	US-PATENT-3,411,900	c26 N75-27126
US-PATENT-3,379,885	c09 N71-22985	US-PATENT-3,412,559	c28 N71-23293
US-PATENT-3,379,974	c14 N71-22990	US-PATENT-3,412,598	c14 N71-23225
US-PATENT-3,380,042	c07 N71-23001	US-PATENT-3,412,729	c04 N71-23185
US-PATENT-3,380,049	c10 N71-23099	US-PATENT-3,412,961	c32 N71-23971
US-PATENT-3,381,339	c06 N71-22975	US-PATENT-3,413,115	c17 N71-23365
US-PATENT-3,381,517	c09 N71-22988	US-PATENT-3,413,393	c17 N71-29137
US-PATENT-3,381,527	c15 N71-22878	US-PATENT-3,413,510	c09 N71-23190
US-PATENT-3,381,569	c21 N71-22880	US-PATENT-3,413,536	c03 N71-24605
US-PATENT-3,381,778	c15 N71-22877	US-PATENT-3,414,012	c09 N71-23191
US-PATENT-3,382,082	c18 N71-22998	US-PATENT-3,414,358	c14 N71-23175
US-PATENT-3,382,105	c03 N71-29044	US-PATENT-3,415,032	c15 N71-23256
US-PATENT-3,382,107	c03 N71-22974	US-PATENT-3,415,069	c15 N71-24044
US-PATENT-3,382,714	c14 N71-22989	US-PATENT-3,415,116	c14 N71-23790
US-PATENT-3,383,461	c07 N71-23026	US-PATENT-3,415,126	c21 N71-23289
US-PATENT-3,383,524	c10 N71-23029	US-PATENT-3,415,156	c15 N71-24043
US-PATENT-3,383,903	c14 N71-23036	US-PATENT-3,415,643	c17 N71-23248
US-PATENT-3,383,922	c14 N71-22752	US-PATENT-3,416,106	c09 N71-24808

NUMBER INDEX

US-PATENT-3,416,274	c31 N71-24035	US-PATENT-3,429,477	c15 N69-27502
US-PATENT-3,416,939	c18 N71-24183	US-PATENT-3,429,756	c76 N79-21910
US-PATENT-3,416,975	c17 N71-23828	US-PATENT-3,430,063	c09 N69-27500
US-PATENT-3,416,988	c15 N71-24164	US-PATENT-3,430,115	c09 N69-24318
US-PATENT-3,417,247	c14 N71-23797	US-PATENT-3,430,131	c24 N71-20518
US-PATENT-3,417,266	c09 N71-23270	US-PATENT-3,430,182	c14 N69-27431
US-PATENT-3,417,298	c10 N71-23271	US-PATENT-3,430,227	c08 N71-19687
US-PATENT-3,417,316	c14 N71-23174	US-PATENT-3,430,237	c07 N69-39974
US-PATENT-3,417,321	c09 N71-23316	US-PATENT-3,430,460	c15 N69-27505
US-PATENT-3,417,332	c07 N71-23405	US-PATENT-3,430,902	c14 N69-27486
US-PATENT-3,417,399	c30 N71-23723	US-PATENT-3,430,909	c11 N69-27466
US-PATENT-3,417,400	c07 N71-28809	US-PATENT-3,430,937	c15 N69-27483
US-PATENT-3,419,329	c14 N71-23268	US-PATENT-3,430,942	c15 N69-27504
US-PATENT-3,419,363	c18 N71-23710	US-PATENT-3,431,149	c14 N69-27459
US-PATENT-3,419,384	c17 N73-28573	US-PATENT-3,431,397	c15 N69-27871
US-PATENT-3,419,433	c03 N71-23187	US-PATENT-3,431,460	c09 N71-23189
US-PATENT-3,419,531	c27 N79-21191	US-PATENT-3,431,559	c09 N69-24333
US-PATENT-3,419,537	c06 N71-23500	US-PATENT-3,432,730	c09 N69-27422
US-PATENT-3,419,827	c09 N71-23548	US-PATENT-3,433,015	c28 N71-20330
US-PATENT-3,419,964	c14 N69-21363	US-PATENT-3,433,079	c14 N69-27503
US-PATENT-3,419,992	c14 N71-23401	US-PATENT-3,433,662	c14 N71-20461
US-PATENT-3,420,069	c15 N69-21465	US-PATENT-3,433,818	c06 N71-23230
US-PATENT-3,420,223	c05 N69-21925	US-PATENT-3,433,909	c10 N71-23663
US-PATENT-3,420,225	c05 N69-21473	US-PATENT-3,433,953	c14 N69-27484
US-PATENT-3,420,253	c12 N69-21466	US-PATENT-3,433,960	c16 N69-27491
US-PATENT-3,420,338	c15 N71-26243	US-PATENT-3,433,961	c14 N69-27432
US-PATENT-3,420,471	c05 N69-21380	US-PATENT-3,434,033	c09 N69-39984
US-PATENT-3,420,704	c15 N69-21460	US-PATENT-3,434,037	c10 N71-26414
US-PATENT-3,420,945	c09 N69-21542	US-PATENT-3,434,050	c09 N71-20569
US-PATENT-3,420,978	c15 N69-21471	US-PATENT-3,434,064	c09 N69-39986
US-PATENT-3,421,004	c14 N71-19568	US-PATENT-3,434,855	c18 N71-24184
US-PATENT-3,421,053	c15 N69-21472	US-PATENT-3,434,885	c03 N71-20492
US-PATENT-3,421,056	c14 N69-23191	US-PATENT-3,435,246	c14 N69-24331
US-PATENT-3,421,105	c09 N69-21543	US-PATENT-3,437,394	c14 N69-27461
US-PATENT-3,421,134	c09 N69-21470	US-PATENT-3,437,527	c03 N69-24267
US-PATENT-3,421,331	c15 N69-23190	US-PATENT-3,437,560	c04 N69-27487
US-PATENT-3,421,363	c11 N69-21540	US-PATENT-3,437,818	c03 N71-23354
US-PATENT-3,421,506	c05 N69-23192	US-PATENT-3,437,832	c09 N69-27463
US-PATENT-3,421,541	c15 N69-21924	US-PATENT-3,437,874	c08 N71-20571
US-PATENT-3,421,549	c03 N69-21469	US-PATENT-3,437,903	c03 N69-25146
US-PATENT-3,421,591	c14 N69-21923	US-PATENT-3,437,919	c14 N69-27423
US-PATENT-3,421,700	c15 N69-23185	US-PATENT-3,437,935	c09 N69-24324
US-PATENT-3,421,768	c15 N69-21362	US-PATENT-3,437,959	c07 N69-24323
US-PATENT-3,421,864	c17 N71-23046	US-PATENT-3,438,044	c07 N69-27460
US-PATENT-3,421,948	c03 N69-21337	US-PATENT-3,438,263	c14 N71-20435
US-PATENT-3,422,213	c03 N69-21539	US-PATENT-3,439,886	c31 N69-27499
US-PATENT-3,422,278	c09 N69-21468	US-PATENT-3,440,419	c14 N73-28491
US-PATENT-3,422,291	c25 N69-21929	US-PATENT-3,443,128	c03 N69-39890
US-PATENT-3,422,324	c14 N69-21541	US-PATENT-3,443,208	c14 N71-20428
US-PATENT-3,422,352	c14 N71-19431	US-PATENT-3,443,384	c28 N71-24321
US-PATENT-3,422,354	c09 N69-21926	US-PATENT-3,443,390	c11 N71-24964
US-PATENT-3,422,390	c09 N69-21927	US-PATENT-3,443,412	c15 N71-23811
US-PATENT-3,422,403	c08 N69-21928	US-PATENT-3,443,416	c06 N69-39936
US-PATENT-3,422,440	c09 N69-21467	US-PATENT-3,443,472	c15 N71-23254
US-PATENT-3,423,179	c15 N69-21922	US-PATENT-3,443,583	c14 N71-18625
US-PATENT-3,423,290	c06 N71-17705	US-PATENT-3,443,584	c32 N71-16106
US-PATENT-3,423,579	c09 N71-19480	US-PATENT-3,443,732	c15 N71-15607
US-PATENT-3,423,608	c09 N69-21313	US-PATENT-3,443,773	c31 N71-23912
US-PATENT-3,423,627	c33 N78-17293	US-PATENT-3,443,779	c01 N69-39981
US-PATENT-3,424,966	c10 N71-20448	US-PATENT-3,444,051	c05 N71-11207
US-PATENT-3,425,131	c15 N71-19489	US-PATENT-3,444,127	c06 N71-11237
US-PATENT-3,425,268	c14 N69-39975	US-PATENT-3,444,375	c14 N71-15599
US-PATENT-3,425,272	c14 N71-20439	US-PATENT-3,444,380	c07 N69-39980
US-PATENT-3,425,276	c14 N69-24257	US-PATENT-3,446,075	c14 N73-30394
US-PATENT-3,425,486	c05 N71-24147	US-PATENT-3,446,387	c15 N69-39935
US-PATENT-3,425,487	c05 N71-19439	US-PATENT-3,446,558	c16 N71-24074
US-PATENT-3,425,885	c15 N69-24322	US-PATENT-3,446,642	c18 N69-39895
US-PATENT-3,426,219	c09 N69-24317	US-PATENT-3,446,676	c03 N71-11050
US-PATENT-3,426,230	c15 N69-24319	US-PATENT-3,446,960	c14 N69-39982
US-PATENT-3,426,263	c03 N71-19438	US-PATENT-3,446,992	c09 N69-39987
US-PATENT-3,426,272	c14 N69-39785	US-PATENT-3,446,997	c03 N69-39898
US-PATENT-3,426,746	c05 N71-26293	US-PATENT-3,446,998	c09 N69-39929
US-PATENT-3,426,791	c15 N71-19569	US-PATENT-3,447,003	c09 N71-20446
US-PATENT-3,427,047	c15 N69-27490	US-PATENT-3,447,015	c06 N69-39889
US-PATENT-3,427,089	c23 N69-28332	US-PATENT-3,447,071	c25 N69-39884
US-PATENT-3,427,093	c09 N71-19479	US-PATENT-3,447,154	c21 N71-11766
US-PATENT-3,427,097	c11 N69-24321	US-PATENT-3,447,155	c09 N71-18598
US-PATENT-3,427,205	c15 N69-24320	US-PATENT-3,447,233	c15 N69-39786
US-PATENT-3,427,435	c17 N69-25147	US-PATENT-3,447,774	c15 N71-19485
US-PATENT-3,427,454	c05 N71-19440	US-PATENT-3,447,850	c09 N71-18600
US-PATENT-3,427,525	c03 N69-21330	US-PATENT-3,448,273	c07 N69-39736
US-PATENT-3,428,761	c09 N69-24329	US-PATENT-3,448,290	c10 N71-23315
US-PATENT-3,428,812	c14 N69-27485	US-PATENT-3,448,341	c09 N71-12526
US-PATENT-3,428,847	c15 N69-24266	US-PATENT-3,448,346	c15 N71-18701
US-PATENT-3,428,910	c09 N69-24330	US-PATENT-3,450,842	c07 N69-39978
US-PATENT-3,428,919	c07 N69-24334	US-PATENT-3,450,878	c14 N71-20430
US-PATENT-3,428,923	c07 N69-27462	US-PATENT-3,450,946	c09 N69-39897
US-PATENT-3,429,058	c12 N69-39988	US-PATENT-3,452,103	c06 N73-30101
US-PATENT-3,429,177	c06 N69-39733	US-PATENT-3,452,423	c26 N71-16037

NUMBER INDEX

US-PATENT-3,452,872	.....	c14 N69-39896	US-PATENT-3,471,858	.....	c07 N71-12391
US-PATENT-3,453,172	.....	c15 N69-39735	US-PATENT-3,472,019	.....	c10 N71-26326
US-PATENT-3,453,462	.....	c03 N69-39983	US-PATENT-3,472,059	.....	c14 N71-23755
US-PATENT-3,453,546	.....	c05 N71-12342	US-PATENT-3,472,060	.....	c14 N71-26136
US-PATENT-3,453,878	.....	c09 N79-21083	US-PATENT-3,472,069	.....	c15 N71-20441
US-PATENT-3,454,410	.....	c18 N69-39979	US-PATENT-3,472,080	.....	c10 N71-26339
US-PATENT-3,454,766	.....	c35 N75-27329	US-PATENT-3,472,086	.....	c15 N71-23809
US-PATENT-3,455,121	.....	c14 N71-20427	US-PATENT-3,472,140	.....	c14 N71-26474
US-PATENT-3,455,171	.....	c23 N71-16098	US-PATENT-3,472,202	.....	c17 N71-24911
US-PATENT-3,456,112	.....	c14 N69-39937	US-PATENT-3,472,372	.....	c15 N71-20440
US-PATENT-3,456,193	.....	c08 N71-19763	US-PATENT-3,472,470	.....	c02 N71-20570
US-PATENT-3,456,201	.....	c09 N69-39885	US-PATENT-3,472,577	.....	c23 N71-24857
US-PATENT-3,458,104	.....	c15 N71-20393	US-PATENT-3,472,625	.....	c06 N71-23527
US-PATENT-3,458,313	.....	c14 N71-17574	US-PATENT-3,472,629	.....	c14 N71-20442
US-PATENT-3,458,651	.....	c09 N71-19449	US-PATENT-3,472,698	.....	c03 N71-23449
US-PATENT-3,458,702	.....	c14 N71-18699	US-PATENT-3,472,709	.....	c18 N71-26153
US-PATENT-3,458,726	.....	c10 N69-39888	US-PATENT-3,472,742	.....	c17 N71-24830
US-PATENT-3,458,833	.....	c10 N71-19418	US-PATENT-3,472,998	.....	c16 N71-20400
US-PATENT-3,458,853	.....	c09 N69-39734	US-PATENT-3,473,050	.....	c09 N71-20447
US-PATENT-3,459,391	.....	c03 N71-11058	US-PATENT-3,473,116	.....	c25 N71-20563
US-PATENT-3,460,378	.....	c14 N71-24233	US-PATENT-3,473,165	.....	c05 N71-26333
US-PATENT-3,460,379	.....	c15 N71-24834	US-PATENT-3,473,216	.....	c15 N71-20443
US-PATENT-3,460,381	.....	c14 N71-23725	US-PATENT-3,473,379	.....	c12 N71-26387
US-PATENT-3,460,397	.....	c15 N71-24045	US-PATENT-3,473,758	.....	c03 N71-20273
US-PATENT-3,460,759	.....	c28 N71-23968	US-PATENT-3,474,192	.....	c07 N71-26102
US-PATENT-3,460,781	.....	c14 N71-23698	US-PATENT-3,474,220	.....	c15 N71-19486
US-PATENT-3,460,995	.....	c03 N71-20407	US-PATENT-3,474,328	.....	c14 N71-26266
US-PATENT-3,461,290	.....	c14 N71-26475	US-PATENT-3,474,357	.....	c09 N71-20445
US-PATENT-3,461,393	.....	c10 N71-26415	US-PATENT-3,474,413	.....	c10 N71-26103
US-PATENT-3,461,437	.....	c10 N71-26434	US-PATENT-3,474,441	.....	c08 N71-19544
US-PATENT-3,461,700	.....	c15 N71-26346	US-PATENT-3,475,384	.....	c06 N73-30103
US-PATENT-3,461,721	.....	c12 N71-20436	US-PATENT-3,475,442	.....	c26 N75-27125
US-PATENT-3,461,855	.....	c05 N71-20268	US-PATENT-3,475,675	.....	c33 N78-17295
US-PATENT-3,463,001	.....	c14 N71-20429	US-PATENT-3,478,514	.....	c37 N77-22479
US-PATENT-3,463,563	.....	c15 N71-23812	US-PATENT-3,480,789	.....	c10 N71-26626
US-PATENT-3,463,673	.....	c03 N71-20491	US-PATENT-3,481,638	.....	c15 N71-26312
US-PATENT-3,463,679	.....	c17 N71-24142	US-PATENT-3,481,802	.....	c31 N79-21226
US-PATENT-3,463,761	.....	c06 N73-30099	US-PATENT-3,481,887	.....	c18 N71-26155
US-PATENT-3,463,762	.....	c06 N73-30100	US-PATENT-3,482,179	.....	c10 N71-26331
US-PATENT-3,463,939	.....	c10 N71-19471	US-PATENT-3,483,535	.....	c10 N71-26418
US-PATENT-3,464,012	.....	c14 N71-26244	US-PATENT-3,484,712	.....	c10 N71-26374
US-PATENT-3,464,016	.....	c10 N71-19472	US-PATENT-3,485,290	.....	c20 N79-21123
US-PATENT-3,464,018	.....	c09 N71-23525	US-PATENT-3,486,123	.....	c16 N71-24831
US-PATENT-3,464,049	.....	c32 N71-15974	US-PATENT-3,487,216	.....	c14 N71-24809
US-PATENT-3,464,051	.....	c15 N71-17685	US-PATENT-3,487,281	.....	c15 N71-24695
US-PATENT-3,465,482	.....	c31 N71-16080	US-PATENT-3,487,288	.....	c10 N71-25139
US-PATENT-3,465,567	.....	c15 N71-18579	US-PATENT-3,487,680	.....	c15 N71-17696
US-PATENT-3,465,569	.....	c14 N71-17659	US-PATENT-3,487,765	.....	c54 N78-17679
US-PATENT-3,465,584	.....	c14 N71-23726	US-PATENT-3,487,765	.....	c54 N79-21765
US-PATENT-3,465,638	.....	c11 N71-18578	US-PATENT-3,488,103	.....	c14 N71-15604
US-PATENT-3,465,986	.....	c31 N71-20396	US-PATENT-3,488,123	.....	c14 N71-17627
US-PATENT-3,466,052	.....	c15 N71-19570	US-PATENT-3,488,414	.....	c15 N71-17803
US-PATENT-3,466,085	.....	c05 N71-12343	US-PATENT-3,488,461	.....	c09 N71-12518
US-PATENT-3,466,198	.....	c03 N71-19545	US-PATENT-3,488,504	.....	c21 N71-15642
US-PATENT-3,466,243	.....	c15 N71-23810	US-PATENT-3,488,771	.....	c54 N78-17678
US-PATENT-3,466,418	.....	c15 N71-18613	US-PATENT-3,490,074	.....	c54 N78-17677
US-PATENT-3,466,424	.....	c15 N71-20395	US-PATENT-3,490,130	.....	c05 N71-12345
US-PATENT-3,466,459	.....	c09 N71-26000	US-PATENT-3,490,205	.....	c14 N71-17588
US-PATENT-3,466,484	.....	c14 N71-18482	US-PATENT-3,490,235	.....	c28 N71-14044
US-PATENT-3,466,560	.....	c09 N71-19466	US-PATENT-3,490,238	.....	c15 N70-22192
US-PATENT-3,466,570	.....	c10 N71-25950	US-PATENT-3,490,405	.....	c15 N71-15597
US-PATENT-3,467,837	.....	c05 N71-23317	US-PATENT-3,490,440	.....	c05 N71-12346
US-PATENT-3,468,303	.....	c09 N71-26002	US-PATENT-3,490,718	.....	c33 N71-14035
US-PATENT-3,468,548	.....	c15 N71-26294	US-PATENT-3,490,719	.....	c21 N71-14159
US-PATENT-3,468,609	.....	c16 N71-24170	US-PATENT-3,490,721	.....	c02 N71-11039
US-PATENT-3,468,727	.....	c14 N71-25892	US-PATENT-3,490,939	.....	c33 N71-14032
US-PATENT-3,468,765	.....	c17 N71-25903	US-PATENT-3,490,965	.....	c09 N71-12513
US-PATENT-3,469,068	.....	c15 N71-23815	US-PATENT-3,491,202	.....	c07 N71-12392
US-PATENT-3,469,069	.....	c15 N71-23798	US-PATENT-3,491,255	.....	c09 N71-12514
US-PATENT-3,469,087	.....	c16 N71-25914	US-PATENT-3,491,335	.....	c14 N71-15620
US-PATENT-3,469,143	.....	c33 N75-29318	US-PATENT-3,491,857	.....	c14 N71-17626
US-PATENT-3,469,289	.....	c15 N71-25975	US-PATENT-3,492,176	.....	c27 N71-14090
US-PATENT-3,469,375	.....	c14 N71-18483	US-PATENT-3,492,672	.....	c05 N71-12344
US-PATENT-3,469,436	.....	c15 N71-23817	US-PATENT-3,492,739	.....	c15 N71-15571
US-PATENT-3,469,437	.....	c14 N71-24234	US-PATENT-3,492,858	.....	c35 N78-17358
US-PATENT-3,469,734	.....	c11 N71-17600	US-PATENT-3,492,862	.....	c14 N71-15600
US-PATENT-3,470,043	.....	c15 N71-24047	US-PATENT-3,492,947	.....	c28 N71-14058
US-PATENT-3,470,304	.....	c14 N71-23267	US-PATENT-3,493,003	.....	c15 N71-15609
US-PATENT-3,470,313	.....	c07 N71-26579	US-PATENT-3,493,004	.....	c12 N71-17579
US-PATENT-3,470,318	.....	c07 N71-24612	US-PATENT-3,493,012	.....	c15 N71-15608
US-PATENT-3,470,342	.....	c09 N71-19610	US-PATENT-3,493,027	.....	c31 N71-18611
US-PATENT-3,470,443	.....	c03 N71-23239	US-PATENT-3,493,153	.....	c05 N71-12351
US-PATENT-3,470,446	.....	c09 N71-23188	US-PATENT-3,493,155	.....	c26 N71-14354
US-PATENT-3,470,466	.....	c14 N71-23699	US-PATENT-3,493,194	.....	c21 N71-14132
US-PATENT-3,470,475	.....	c10 N71-19467	US-PATENT-3,493,197	.....	c02 N71-11043
US-PATENT-3,470,489	.....	c09 N71-23598	US-PATENT-3,493,291	.....	c14 N71-15622
US-PATENT-3,470,495	.....	c10 N71-23669	US-PATENT-3,493,294	.....	c14 N71-15605
US-PATENT-3,470,496	.....	c09 N71-19470	US-PATENT-3,493,401	.....	c18 N71-14014
US-PATENT-3,471,856	.....	c30 N71-16090	US-PATENT-3,493,415	.....	c15 N71-15610

NUMBER INDEX

US-PATENT-3,493,437	.....	c03 N71-11056	US-PATENT-3,516,970	.....	c06 N71-11239
US-PATENT-3,493,522	.....	c06 N71-11243	US-PATENT-3,516,971	.....	c06 N71-28740
US-PATENT-3,493,524	.....	c06 N71-11242	US-PATENT-3,517,109	.....	c07 N71-19436
US-PATENT-3,493,665	.....	c14 N71-15621	US-PATENT-3,517,162	.....	c33 N71-16278
US-PATENT-3,493,677	.....	c07 N71-11300	US-PATENT-3,517,171	.....	c08 N71-24633
US-PATENT-3,493,711	.....	c15 N71-14932	US-PATENT-3,517,221	.....	c10 N71-19547
US-PATENT-3,493,746	.....	c15 N71-15606	US-PATENT-3,517,268	.....	c10 N71-19469
US-PATENT-3,493,797	.....	c15 N71-17652	US-PATENT-3,517,302	.....	c25 N71-16073
US-PATENT-3,493,805	.....	c09 N71-12521	US-PATENT-3,517,318	.....	c08 N71-19432
US-PATENT-3,493,901	.....	c09 N71-12517	US-PATENT-3,517,328	.....	c16 N71-18614
US-PATENT-3,493,929	.....	c08 N71-12505	US-PATENT-3,518,232	.....	c06 N71-11235
US-PATENT-3,493,942	.....	c08 N71-12504	US-PATENT-3,520,190	.....	c10 N71-13537
US-PATENT-3,495,260	.....	c21 N71-13958	US-PATENT-3,520,238	.....	c14 N71-18465
US-PATENT-3,495,262	.....	c07 N71-12396	US-PATENT-3,520,317	.....	c12 N71-17578
US-PATENT-3,500,020	.....	c01 N71-13411	US-PATENT-3,520,496	.....	c31 N71-16345
US-PATENT-3,500,525	.....	c15 N71-17688	US-PATENT-3,520,503	.....	c31 N71-16085
US-PATENT-3,500,677	.....	c14 N71-17584	US-PATENT-3,520,617	.....	c23 N71-16101
US-PATENT-3,500,686	.....	c12 N71-17569	US-PATENT-3,520,660	.....	c23 N71-16355
US-PATENT-3,500,688	.....	c14 N71-17587	US-PATENT-3,521,054	.....	c06 N71-13461
US-PATENT-3,500,747	.....	c09 N71-18599	US-PATENT-3,521,143	.....	c08 N71-18752
US-PATENT-3,500,827	.....	c05 N71-11203	US-PATENT-3,521,290	.....	c31 N71-16102
US-PATENT-3,501,112	.....	c15 N71-17693	US-PATENT-3,523,228	.....	c10 N71-24861
US-PATENT-3,501,632	.....	c27 N71-16348	US-PATENT-3,526,030	.....	c15 N71-17686
US-PATENT-3,501,641	.....	c20 N71-16340	US-PATENT-3,526,134	.....	c33 N71-16356
US-PATENT-3,501,648	.....	c10 N71-24799	US-PATENT-3,526,139	.....	c31 N71-16221
US-PATENT-3,501,649	.....	c10 N71-18723	US-PATENT-3,526,140	.....	c27 N71-16223
US-PATENT-3,501,664	.....	c14 N71-17585	US-PATENT-3,526,359	.....	c33 N71-16357
US-PATENT-3,501,683	.....	c15 N71-17694	US-PATENT-3,526,365	.....	c28 N71-16224
US-PATENT-3,501,684	.....	c09 N71-26092	US-PATENT-3,526,372	.....	c31 N71-16346
US-PATENT-3,501,701	.....	c08 N71-18692	US-PATENT-3,526,382	.....	c15 N71-17649
US-PATENT-3,501,704	.....	c07 N71-11282	US-PATENT-3,526,460	.....	c23 N71-16365
US-PATENT-3,501,712	.....	c09 N71-19516	US-PATENT-3,526,473	.....	c18 N71-15545
US-PATENT-3,501,743	.....	c09 N71-18843	US-PATENT-3,526,580	.....	c18 N71-16210
US-PATENT-3,501,750	.....	c08 N71-19288	US-PATENT-3,526,611	.....	c06 N71-11236
US-PATENT-3,501,752	.....	c08 N71-18595	US-PATENT-3,526,845	.....	c09 N71-13531
US-PATENT-3,501,764	.....	c10 N71-18722	US-PATENT-3,526,897	.....	c09 N71-13521
US-PATENT-3,502,051	.....	c15 N71-17647	US-PATENT-3,527,724	.....	c27 N78-33228
US-PATENT-3,502,074	.....	c05 N71-11190	US-PATENT-3,529,480	.....	c15 N71-17692
US-PATENT-3,502,141	.....	c33 N71-16277	US-PATENT-3,529,928	.....	c17 N71-16393
US-PATENT-3,503,251	.....	c32 N71-16428	US-PATENT-3,530,336	.....	c09 N71-13518
US-PATENT-3,504,258	.....	c10 N71-18724	US-PATENT-3,531,964	.....	c15 N71-18616
US-PATENT-3,504,983	.....	c23 N71-16341	US-PATENT-3,531,978	.....	c14 N71-18481
US-PATENT-3,507,034	.....	c15 N71-17650	US-PATENT-3,531,982	.....	c15 N71-18132
US-PATENT-3,507,114	.....	c27 N71-16392	US-PATENT-3,531,989	.....	c33 N71-15641
US-PATENT-3,507,146	.....	c05 N71-11202	US-PATENT-3,532,118	.....	c12 N71-18615
US-PATENT-3,507,150	.....	c20 N71-16281	US-PATENT-3,532,128	.....	c15 N71-18580
US-PATENT-3,507,425	.....	c15 N71-17628	US-PATENT-3,532,427	.....	c21 N71-19212
US-PATENT-3,507,436	.....	c08 N71-19420	US-PATENT-3,532,428	.....	c30 N71-15990
US-PATENT-3,507,704	.....	c03 N71-11052	US-PATENT-3,532,538	.....	c18 N71-16046
US-PATENT-3,507,706	.....	c03 N71-18698	US-PATENT-3,532,551	.....	c03 N71-11049
US-PATENT-3,508,036	.....	c08 N71-18693	US-PATENT-3,532,568	.....	c17 N71-16046
US-PATENT-3,508,039	.....	c08 N71-19437	US-PATENT-3,532,673	.....	c06 N71-11238
US-PATENT-3,508,053	.....	c09 N71-18830	US-PATENT-3,532,807	.....	c07 N71-19433
US-PATENT-3,508,070	.....	c03 N71-11057	US-PATENT-3,532,819	.....	c10 N71-19468
US-PATENT-3,508,152	.....	c07 N71-11266	US-PATENT-3,532,866	.....	c08 N71-18602
US-PATENT-3,508,156	.....	c07 N71-11267	US-PATENT-3,532,880	.....	c24 N71-16095
US-PATENT-3,508,347	.....	c05 N71-24606	US-PATENT-3,532,894	.....	c23 N71-16100
US-PATENT-3,508,402	.....	c33 N71-16104	US-PATENT-3,532,948	.....	c10 N71-18772
US-PATENT-3,508,541	.....	c05 N71-11193	US-PATENT-3,532,960	.....	c03 N71-12255
US-PATENT-3,508,578	.....	c32 N71-16103	US-PATENT-3,532,973	.....	c15 N71-17822
US-PATENT-3,508,723	.....	c31 N71-16222	US-PATENT-3,532,975	.....	c10 N71-19421
US-PATENT-3,508,724	.....	c02 N71-11037	US-PATENT-3,532,979	.....	c10 N71-12554
US-PATENT-3,508,739	.....	c15 N71-17648	US-PATENT-3,532,985	.....	c07 N71-19773
US-PATENT-3,508,779	.....	c15 N71-24897	US-PATENT-3,533,001	.....	c07 N71-24583
US-PATENT-3,508,940	.....	c18 N71-16124	US-PATENT-3,533,006	.....	c10 N72-28241
US-PATENT-3,508,955	.....	c18 N71-16105	US-PATENT-3,533,074	.....	c08 N71-12502
US-PATENT-3,508,999	.....	c15 N71-17667	US-PATENT-3,533,093	.....	c10 N71-19417
US-PATENT-3,509,034	.....	c14 N71-17575	US-PATENT-3,533,098	.....	c08 N71-18594
US-PATENT-3,509,386	.....	c03 N71-11055	US-PATENT-3,534,365	.....	c07 N71-19854
US-PATENT-3,509,419	.....	c24 N71-16213	US-PATENT-3,534,367	.....	c02 N71-19287
US-PATENT-3,509,469	.....	c23 N71-16099	US-PATENT-3,534,375	.....	c07 N71-11285
US-PATENT-3,509,475	.....	c09 N71-24596	US-PATENT-3,534,376	.....	c07 N71-26101
US-PATENT-3,509,491	.....	c09 N71-18721	US-PATENT-3,534,406	.....	c05 N71-11195
US-PATENT-3,509,551	.....	c08 N71-18694	US-PATENT-3,534,407	.....	c05 N71-11194
US-PATENT-3,509,558	.....	c08 N71-19435	US-PATENT-3,534,479	.....	c14 N71-17657
US-PATENT-3,509,570	.....	c09 N71-18720	US-PATENT-3,534,480	.....	c14 N71-17658
US-PATENT-3,509,578	.....	c07 N71-19493	US-PATENT-3,534,485	.....	c11 N71-18773
US-PATENT-3,511,680	.....	c31 N79-21227	US-PATENT-3,534,555	.....	c12 N71-17631
US-PATENT-3,512,009	.....	c08 N71-18751	US-PATENT-3,534,584	.....	c10 N71-13545
US-PATENT-3,514,785	.....	c54 N78-18761	US-PATENT-3,534,585	.....	c14 N71-17701
US-PATENT-3,514,785	.....	c54 N79-21766	US-PATENT-3,534,592	.....	c14 N71-17656
US-PATENT-3,516,091	.....	c05 N71-24623	US-PATENT-3,534,596	.....	c14 N71-17586
US-PATENT-3,516,179	.....	c11 N71-19494	US-PATENT-3,534,597	.....	c31 N71-15643
US-PATENT-3,516,185	.....	c12 N71-18603	US-PATENT-3,534,650	.....	c15 N71-17653
US-PATENT-3,516,284	.....	c12 N71-17573	US-PATENT-3,534,686	.....	c31 N71-15687
US-PATENT-3,516,404	.....	c05 N71-17599	US-PATENT-3,534,727	.....	c05 N71-11189
US-PATENT-3,516,711	.....	c05 N71-12341	US-PATENT-3,534,765	.....	c12 N71-17661
US-PATENT-3,516,879	.....	c23 N71-16212	US-PATENT-3,534,826	.....	c31 N71-15689
US-PATENT-3,516,964	.....	c06 N71-11240	US-PATENT-3,534,836	.....	c15 N71-17805

NUMBER INDEX

US-PATENT-3,534,909	.....	c15 N71-17654	US-PATENT-3,546,920	.....	c06 N71-24607
US-PATENT-3,534,924	.....	c31 N71-15674	US-PATENT-3,546,931	.....	c32 N71-25360
US-PATENT-3,534,925	.....	c31 N71-15676	US-PATENT-3,547,105	.....	c09 N71-24618
US-PATENT-3,534,926	.....	c15 N71-19214	US-PATENT-3,547,376	.....	c31 N71-25434
US-PATENT-3,534,930	.....	c02 N71-13422	US-PATENT-3,547,540	.....	c16 N71-24828
US-PATENT-3,535,012	.....	c16 N71-15567	US-PATENT-3,547,801	.....	c03 N71-24718
US-PATENT-3,535,013	.....	c16 N71-15551	US-PATENT-3,548,107	.....	c07 N71-24622
US-PATENT-3,535,014	.....	c16 N71-15565	US-PATENT-3,548,633	.....	c18 N71-24934
US-PATENT-3,535,024	.....	c14 N71-17662	US-PATENT-3,548,636	.....	c15 N71-24910
US-PATENT-3,535,041	.....	c14 N71-17655	US-PATENT-3,548,812	.....	c05 N71-24729
US-PATENT-3,535,110	.....	c17 N71-15468	US-PATENT-3,548,930	.....	c33 N71-25353
US-PATENT-3,535,130	.....	c18 N71-15469	US-PATENT-3,549,435	.....	c14 N72-28438
US-PATENT-3,535,165	.....	c33 N71-15568	US-PATENT-3,549,564	.....	c06 N71-24739
US-PATENT-3,535,179	.....	c15 N71-17651	US-PATENT-3,549,799	.....	c09 N71-25866
US-PATENT-3,535,352	.....	c18 N71-15688	US-PATENT-3,549,882	.....	c15 N71-24896
US-PATENT-3,535,446	.....	c09 N71-12539	US-PATENT-3,549,955	.....	c09 N71-24892
US-PATENT-3,535,451	.....	c07 N71-11281	US-PATENT-3,550,023	.....	c09 N71-24806
US-PATENT-3,535,497	.....	c08 N71-24890	US-PATENT-3,550,034	.....	c16 N71-24832
US-PATENT-3,535,543	.....	c09 N71-13486	US-PATENT-3,550,129	.....	c21 N71-24948
US-PATENT-3,535,547	.....	c09 N71-12520	US-PATENT-3,550,585	.....	c05 N71-24738
US-PATENT-3,535,554	.....	c09 N71-12516	US-PATENT-3,551,266	.....	c33 N71-24858
US-PATENT-3,535,560	.....	c08 N71-12494	US-PATENT-3,551,816	.....	c07 N71-24613
US-PATENT-3,535,562	.....	c33 N71-27862	US-PATENT-3,551,831	.....	c33 N75-27251
US-PATENT-3,535,570	.....	c15 N71-24696	US-PATENT-3,552,124	.....	c28 N71-26642
US-PATENT-3,535,586	.....	c25 N71-15562	US-PATENT-3,552,125	.....	c28 N71-26173
US-PATENT-3,535,602	.....	c09 N71-13522	US-PATENT-3,553,002	.....	c18 N71-26100
US-PATENT-3,535,642	.....	c08 N71-12503	US-PATENT-3,553,586	.....	c07 N71-26292
US-PATENT-3,535,644	.....	c09 N71-12519	US-PATENT-3,553,704	.....	c10 N71-26142
US-PATENT-3,535,657	.....	c07 N71-12390	US-PATENT-3,553,904	.....	c15 N71-26134
US-PATENT-3,535,658	.....	c08 N71-12500	US-PATENT-3,554,466	.....	c31 N71-26537
US-PATENT-3,535,683	.....	c31 N71-15566	US-PATENT-3,554,647	.....	c23 N71-26206
US-PATENT-3,535,696	.....	c08 N71-12506	US-PATENT-3,554,806	.....	c03 N71-26084
US-PATENT-3,535,702	.....	c09 N71-12515	US-PATENT-3,555,192	.....	c07 N71-26181
US-PATENT-3,536,103	.....	c15 N71-19213	US-PATENT-3,555,361	.....	c10 N71-26531
US-PATENT-3,537,096	.....	c08 N71-12507	US-PATENT-3,555,455	.....	c23 N71-26722
US-PATENT-3,537,103	.....	c08 N71-24650	US-PATENT-3,555,483	.....	c35 N71-21393
US-PATENT-3,537,107	.....	c05 N71-24730	US-PATENT-3,555,867	.....	c15 N71-26148
US-PATENT-3,537,305	.....	c26 N71-25490	US-PATENT-3,555,898	.....	c12 N71-26546
US-PATENT-3,537,515	.....	c09 N71-24807	US-PATENT-3,556,048	.....	c09 N71-26701
US-PATENT-3,537,668	.....	c05 N71-24728	US-PATENT-3,556,634	.....	c07 N71-26291
US-PATENT-3,537,672	.....	c15 N71-24694	US-PATENT-3,557,027	.....	c06 N71-25929
US-PATENT-3,538,053	.....	c27 N78-17214	US-PATENT-3,557,534	.....	c15 N71-26185
US-PATENT-3,539,905	.....	c09 N71-24800	US-PATENT-3,559,031	.....	c10 N71-26085
US-PATENT-3,540,045	.....	c09 N71-24595	US-PATENT-3,559,096	.....	c10 N71-25882
US-PATENT-3,540,048	.....	c31 N71-24813	US-PATENT-3,559,460	.....	c14 N71-26672
US-PATENT-3,540,050	.....	c09 N71-24804	US-PATENT-3,559,937	.....	c14 N71-26627
US-PATENT-3,540,054	.....	c07 N71-24625	US-PATENT-3,560,081	.....	c19 N71-26674
US-PATENT-3,540,056	.....	c07 N71-24614	US-PATENT-3,560,161	.....	c06 N71-26754
US-PATENT-3,540,250	.....	c15 N71-24865	US-PATENT-3,561,828	.....	c15 N71-26189
US-PATENT-3,540,449	.....	c15 N71-24835	US-PATENT-3,562,575	.....	c09 N71-26182
US-PATENT-3,540,615	.....	c33 N71-25351	US-PATENT-3,562,631	.....	c14 N71-26137
US-PATENT-3,540,676	.....	c15 N71-24600	US-PATENT-3,562,857	.....	c15 N71-26721
US-PATENT-3,540,790	.....	c16 N71-26154	US-PATENT-3,562,881	.....	c09 N71-26678
US-PATENT-3,540,802	.....	c23 N71-24868	US-PATENT-3,562,919	.....	c15 N71-26145
US-PATENT-3,540,942	.....	c15 N71-24875	US-PATENT-3,563,135	.....	c15 N71-27147
US-PATENT-3,540,989	.....	c24 N71-25555	US-PATENT-3,563,198	.....	c18 N71-26285
US-PATENT-3,541,250	.....	c07 N71-24742	US-PATENT-3,563,232	.....	c05 N71-27234
US-PATENT-3,541,312	.....	c08 N71-24891	US-PATENT-3,563,307	.....	c15 N71-26611
US-PATENT-3,541,314	.....	c07 N71-24741	US-PATENT-3,563,668	.....	c14 N71-26788
US-PATENT-3,541,346	.....	c09 N71-24803	US-PATENT-3,563,727	.....	c15 N71-27184
US-PATENT-3,541,361	.....	c09 N71-24904	US-PATENT-3,563,918	.....	c06 N71-27363
US-PATENT-3,541,422	.....	c03 N71-24719	US-PATENT-3,564,234	.....	c09 N71-26787
US-PATENT-3,541,428	.....	c09 N71-24893	US-PATENT-3,564,401	.....	c14 N71-26135
US-PATENT-3,541,439	.....	c09 N71-24843	US-PATENT-3,564,420	.....	c14 N71-26774
US-PATENT-3,541,450	.....	c07 N71-24840	US-PATENT-3,564,564	.....	c15 N71-26162
US-PATENT-3,541,459	.....	c10 N71-24844	US-PATENT-3,564,866	.....	c23 N71-26654
US-PATENT-3,541,479	.....	c09 N71-24841	US-PATENT-3,564,906	.....	c32 N71-26681
US-PATENT-3,541,486	.....	c16 N71-28554	US-PATENT-3,565,530	.....	c15 N71-26673
US-PATENT-3,541,679	.....	c03 N71-24691	US-PATENT-3,565,584	.....	c15 N71-27372
US-PATENT-3,541,825	.....	c15 N71-24836	US-PATENT-3,565,607	.....	c17 N71-26773
US-PATENT-3,541,875	.....	c15 N71-24984	US-PATENT-3,565,719	.....	c03 N71-26726
US-PATENT-3,543,050	.....	c10 N71-24862	US-PATENT-3,566,027	.....	c07 N71-27341
US-PATENT-3,543,159	.....	c09 N71-24717	US-PATENT-3,566,045	.....	c08 N71-27210
US-PATENT-3,543,839	.....	c34 N78-17337	US-PATENT-3,566,122	.....	c14 N71-27323
US-PATENT-3,545,208	.....	c28 N71-25213	US-PATENT-3,566,143	.....	c14 N71-27407
US-PATENT-3,545,226	.....	c23 N71-24725	US-PATENT-3,566,158	.....	c10 N71-27126
US-PATENT-3,545,252	.....	c11 N71-24985	US-PATENT-3,566,268	.....	c10 N71-26577
US-PATENT-3,545,262	.....	c38 N76-28563	US-PATENT-3,566,396	.....	c10 N71-26544
US-PATENT-3,545,275	.....	c09 N71-24597	US-PATENT-3,566,459	.....	c14 N71-27334
US-PATENT-3,545,725	.....	c15 N71-24599	US-PATENT-3,566,676	.....	c14 N71-26199
US-PATENT-3,545,792	.....	c15 N71-24903	US-PATENT-3,566,993	.....	c15 N71-27169
US-PATENT-3,546,386	.....	c07 N71-24621	US-PATENT-3,567,155	.....	c21 N71-27324
US-PATENT-3,546,471	.....	c14 N71-24864	US-PATENT-3,567,339	.....	c15 N71-27084
US-PATENT-3,546,552	.....	c15 N71-24895	US-PATENT-3,567,651	.....	c18 N71-27170
US-PATENT-3,546,553	.....	c09 N71-24805	US-PATENT-3,567,677	.....	c18 N71-25881
US-PATENT-3,546,684	.....	c07 N71-24624	US-PATENT-3,567,861	.....	c10 N71-25865
US-PATENT-3,546,694	.....	c10 N71-24798	US-PATENT-3,567,913	.....	c10 N71-27137
US-PATENT-3,546,705	.....	c09 N71-24842	US-PATENT-3,567,927	.....	c14 N71-28863
US-PATENT-3,546,917	.....	c15 N71-24679	US-PATENT-3,568,010	.....	c09 N71-27232

NUMBER INDEX

US-PATENT-3,568,028	.....	c10 N71-27136	US-PATENT-3,579,412	.....	c17 N71-28747
US-PATENT-3,568,103	.....	c10 N71-25900	US-PATENT-3,581,492	.....	c28 N71-28915
US-PATENT-3,568,197	.....	c07 N71-27056	US-PATENT-3,582,828	.....	c33 N77-21314
US-PATENT-3,568,447	.....	c15 N71-27432	US-PATENT-3,582,960	.....	c09 N71-28618
US-PATENT-3,568,572	.....	c15 N71-27754	US-PATENT-3,583,058	.....	c15 N71-29018
US-PATENT-3,568,702	.....	c10 N71-25899	US-PATENT-3,583,239	.....	c15 N71-29132
US-PATENT-3,568,748	.....	c15 N71-27091	US-PATENT-3,583,322	.....	c05 N71-28619
US-PATENT-3,568,795	.....	c15 N71-27067	US-PATENT-3,583,419	.....	c12 N71-28741
US-PATENT-3,568,805	.....	c15 N71-27146	US-PATENT-3,583,744	.....	c15 N71-29133
US-PATENT-3,568,874	.....	c15 N71-27068	US-PATENT-3,583,777	.....	c15 N71-28465
US-PATENT-3,568,885	.....	c14 N71-27005	US-PATENT-3,583,815	.....	c15 N71-28740
US-PATENT-3,569,710	.....	c14 N71-25901	US-PATENT-3,584,311	.....	c09 N71-28468
US-PATENT-3,569,744	.....	c09 N71-27016	US-PATENT-3,584,660	.....	c15 N72-12408
US-PATENT-3,569,804	.....	c09 N71-25999	US-PATENT-3,585,514	.....	c10 N71-33129
US-PATENT-3,569,827	.....	c18 N71-27397	US-PATENT-3,585,882	.....	c15 N71-33518
US-PATENT-3,569,828	.....	c14 N71-27186	US-PATENT-3,586,261	.....	c31 N71-33160
US-PATENT-3,569,866	.....	c10 N71-27271	US-PATENT-3,587,306	.....	c11 N71-33612
US-PATENT-3,569,875	.....	c07 N71-27191	US-PATENT-3,587,424	.....	c16 N71-33410
US-PATENT-3,569,956	.....	c10 N71-25917	US-PATENT-3,588,220	.....	c23 N71-33229
US-PATENT-3,569,976	.....	c07 N71-27233	US-PATENT-3,588,331	.....	c07 N72-12081
US-PATENT-3,570,143	.....	c10 N71-27365	US-PATENT-3,588,359	.....	c08 N71-33108
US-PATENT-3,570,364	.....	c28 N71-26779	US-PATENT-3,588,483	.....	c07 N71-33110
US-PATENT-3,570,513	.....	c12 N71-27332	US-PATENT-3,588,648	.....	c07 N71-33613
US-PATENT-3,570,785	.....	c28 N71-27585	US-PATENT-3,588,671	.....	c09 N71-33109
US-PATENT-3,570,789	.....	c02 N71-27088	US-PATENT-3,588,705	.....	c07 N71-33696
US-PATENT-3,571,555	.....	c15 N71-27135	US-PATENT-3,588,751	.....	c07 N71-33606
US-PATENT-3,571,656	.....	c09 N71-27001	US-PATENT-3,588,874	.....	c09 N71-33519
US-PATENT-3,571,662	.....	c10 N71-27366	US-PATENT-3,588,883	.....	c10 N71-33407
US-PATENT-3,571,693	.....	c09 N71-27364	US-PATENT-3,591,420	.....	c03 N71-33409
US-PATENT-3,571,699	.....	c09 N71-27053	US-PATENT-3,591,426	.....	c17 N71-33408
US-PATENT-3,571,700	.....	c14 N71-27325	US-PATENT-3,591,885	.....	c15 N72-11390
US-PATENT-3,571,707	.....	c10 N71-27338	US-PATENT-3,591,960	.....	c15 N72-12409
US-PATENT-3,571,800	.....	c10 N71-27272	US-PATENT-3,591,967	.....	c28 N72-11709
US-PATENT-3,571,801	.....	c08 N71-27255	US-PATENT-3,592,422	.....	c15 N72-11391
US-PATENT-3,572,089	.....	c14 N71-27185	US-PATENT-3,592,478	.....	c09 N72-11224
US-PATENT-3,572,104	.....	c28 N71-27094	US-PATENT-3,592,505	.....	c05 N72-11085
US-PATENT-3,572,112	.....	c15 N71-27006	US-PATENT-3,592,545	.....	c14 N72-11364
US-PATENT-3,572,610	.....	c28 N71-27095	US-PATENT-3,592,559	.....	c02 N72-11018
US-PATENT-3,572,935	.....	c14 N71-27215	US-PATENT-3,592,628	.....	c15 N72-11387
US-PATENT-3,573,470	.....	c74 N78-33913	US-PATENT-3,592,768	.....	c15 N72-11389
US-PATENT-3,573,504	.....	c33 N78-17294	US-PATENT-3,593,001	.....	c15 N72-11392
US-PATENT-3,573,583	.....	c09 N71-28886	US-PATENT-3,593,024	.....	c24 N72-11595
US-PATENT-3,573,797	.....	c08 N71-27057	US-PATENT-3,593,132	.....	c09 N72-11225
US-PATENT-3,573,977	.....	c15 N71-28582	US-PATENT-3,593,138	.....	c07 N72-11149
US-PATENT-3,573,986	.....	c03 N71-28579	US-PATENT-3,593,175	.....	c10 N72-11256
US-PATENT-3,573,996	.....	c18 N71-29040	US-PATENT-3,593,180	.....	c07 N72-11150
US-PATENT-3,574,057	.....	c22 N71-28759	US-PATENT-3,593,194	.....	c16 N72-12440
US-PATENT-3,574,084	.....	c14 N71-28933	US-PATENT-3,594,790	.....	c07 N72-12080
US-PATENT-3,574,277	.....	c15 N71-28467	US-PATENT-3,594,803	.....	c09 N72-12136
US-PATENT-3,574,286	.....	c11 N71-27036	US-PATENT-3,596,465	.....	c28 N72-11708
US-PATENT-3,574,438	.....	c07 N71-29065	US-PATENT-3,596,510	.....	c14 N72-11363
US-PATENT-3,574,448	.....	c23 N71-29123	US-PATENT-3,596,554	.....	c15 N72-11385
US-PATENT-3,574,462	.....	c14 N71-29041	US-PATENT-3,596,863	.....	c15 N72-11386
US-PATENT-3,574,467	.....	c23 N71-29125	US-PATENT-3,597,281	.....	c03 N72-11062
US-PATENT-3,574,470	.....	c14 N71-28993	US-PATENT-3,598,921	.....	c08 N72-11171
US-PATENT-3,574,770	.....	c06 N71-27254	US-PATENT-3,599,216	.....	c07 N72-11148
US-PATENT-3,575,336	.....	c15 N71-27214	US-PATENT-3,599,335	.....	c08 N72-11172
US-PATENT-3,575,585	.....	c14 N71-27058	US-PATENT-3,599,443	.....	c05 N72-11088
US-PATENT-3,575,597	.....	c14 N71-27090	US-PATENT-3,599,489	.....	c14 N72-11365
US-PATENT-3,575,602	.....	c16 N71-27183	US-PATENT-3,600,046	.....	c15 N72-11388
US-PATENT-3,575,638	.....	c09 N71-26133	US-PATENT-3,600,599	.....	c33 N78-17296
US-PATENT-3,575,641	.....	c10 N71-26334	US-PATENT-3,602,920	.....	c11 N72-17183
US-PATENT-3,576,107	.....	c28 N71-26781	US-PATENT-3,602,923	.....	c05 N72-22093
US-PATENT-3,576,127	.....	c14 N71-26161	US-PATENT-3,602,979	.....	c15 N72-22492
US-PATENT-3,576,135	.....	c15 N71-26635	US-PATENT-3,602,984	.....	c26 N72-17820
US-PATENT-3,576,301	.....	c02 N71-26110	US-PATENT-3,603,092	.....	c28 N72-17843
US-PATENT-3,576,656	.....	c18 N71-26772	US-PATENT-3,603,093	.....	c28 N72-18766
US-PATENT-3,576,669	.....	c15 N71-29032	US-PATENT-3,603,260	.....	c33 N72-17947
US-PATENT-3,576,723	.....	c09 N71-28691	US-PATENT-3,603,285	.....	c25 N75-29192
US-PATENT-3,576,786	.....	c06 N71-28620	US-PATENT-3,603,382	.....	c33 N72-17948
US-PATENT-3,577,014	.....	c10 N71-28860	US-PATENT-3,603,433	.....	c15 N72-17450
US-PATENT-3,577,092	.....	c07 N71-28430	US-PATENT-3,603,532	.....	c30 N72-17873
US-PATENT-3,577,356	.....	c06 N73-30102	US-PATENT-3,603,683	.....	c14 N72-17326
US-PATENT-3,578,755	.....	c14 N71-29134	US-PATENT-3,603,686	.....	c16 N72-13437
US-PATENT-3,578,756	.....	c11 N71-28629	US-PATENT-3,603,690	.....	c14 N72-17323
US-PATENT-3,578,758	.....	c14 N71-28992	US-PATENT-3,603,722	.....	c07 N72-17109
US-PATENT-3,578,838	.....	c16 N71-29131	US-PATENT-3,603,772	.....	c08 N72-22166
US-PATENT-3,578,867	.....	c14 N71-28994	US-PATENT-3,603,798	.....	c09 N72-17152
US-PATENT-3,578,957	.....	c08 N71-29033	US-PATENT-3,603,864	.....	c09 N72-17154
US-PATENT-3,578,988	.....	c09 N71-29139	US-PATENT-3,603,892	.....	c09 N72-17155
US-PATENT-3,578,992	.....	c09 N71-28421	US-PATENT-3,603,946	.....	c09 N72-17153
US-PATENT-3,579,041	.....	c09 N71-29008	US-PATENT-3,603,974	.....	c14 N72-18411
US-PATENT-3,579,103	.....	c14 N71-28991	US-PATENT-3,603,976	.....	c08 N72-18184
US-PATENT-3,579,122	.....	c08 N71-29034	US-PATENT-3,605,032	.....	c10 N72-17172
US-PATENT-3,579,146	.....	c08 N71-29138	US-PATENT-3,605,424	.....	c15 N72-17453
US-PATENT-3,579,147	.....	c07 N71-28429	US-PATENT-3,605,482	.....	c14 N72-16282
US-PATENT-3,579,168	.....	c09 N71-29035	US-PATENT-3,605,495	.....	c14 N72-17327
US-PATENT-3,579,242	.....	c07 N71-28980	US-PATENT-3,605,519	.....	c14 N72-17324
US-PATENT-3,579,390	.....	c18 N71-28729	US-PATENT-3,606,212	.....	c31 N72-18859

NUMBER INDEX

US-PATENT-3,606,470	.....	c46 N74-23068	US-PATENT-3,623,114	.....	c07 N72-22127
US-PATENT-3,606,522	.....	c23 N72-23695	US-PATENT-3,623,359	.....	c14 N72-21406
US-PATENT-3,606,979	.....	c15 N72-17454	US-PATENT-3,623,359	.....	c35 N77-27367
US-PATENT-3,607,015	.....	c06 N72-17093	US-PATENT-3,623,360	.....	c14 N72-21405
US-PATENT-3,607,076	.....	c06 N72-17094	US-PATENT-3,623,361	.....	c14 N72-21407
US-PATENT-3,607,080	.....	c06 N72-17095	US-PATENT-3,623,394	.....	c15 N72-22488
US-PATENT-3,607,338	.....	c18 N72-17532	US-PATENT-3,623,828	.....	c15 N72-22489
US-PATENT-3,607,401	.....	c03 N72-15986	US-PATENT-3,623,861	.....	c17 N72-22530
US-PATENT-3,607,495	.....	c15 N72-16330	US-PATENT-3,624,496	.....	c15 N72-21464
US-PATENT-3,608,046	.....	c15 N72-16329	US-PATENT-3,624,598	.....	c21 N72-22619
US-PATENT-3,608,365	.....	c15 N72-17452	US-PATENT-3,624,650	.....	c07 N72-21118
US-PATENT-3,608,409	.....	c14 N72-16283	US-PATENT-3,624,659	.....	c09 N72-21246
US-PATENT-3,608,844	.....	c15 N72-18477	US-PATENT-3,624,839	.....	c05 N72-20098
US-PATENT-3,609,230	.....	c09 N72-17156	US-PATENT-3,625,018	.....	c15 N72-22484
US-PATENT-3,609,271	.....	c09 N72-22204	US-PATENT-3,625,084	.....	c15 N72-22485
US-PATENT-3,609,327	.....	c08 N72-22167	US-PATENT-3,625,766	.....	c03 N72-20032
US-PATENT-3,609,353	.....	c14 N72-17328	US-PATENT-3,626,114	.....	c35 N79-16246
US-PATENT-3,609,364	.....	c10 N72-17173	US-PATENT-3,626,189	.....	c14 N72-20381
US-PATENT-3,609,387	.....	c09 N72-17157	US-PATENT-3,626,218	.....	c14 N72-22439
US-PATENT-3,609,535	.....	c14 N72-17325	US-PATENT-3,626,298	.....	c07 N72-20140
US-PATENT-3,609,567	.....	c10 N72-17171	US-PATENT-3,626,308	.....	c10 N72-20223
US-PATENT-3,609,740	.....	c05 N72-16015	US-PATENT-3,626,828	.....	c14 N72-20380
US-PATENT-3,610,365	.....	c15 N72-17451	US-PATENT-3,628,113	.....	c37 N77-27400
US-PATENT-3,611,274	.....	c15 N72-17455	US-PATENT-3,629,068	.....	c22 N72-20597
US-PATENT-3,611,330	.....	c23 N72-17747	US-PATENT-3,629,161	.....	c18 N72-22567
US-PATENT-3,611,798	.....	c14 N72-22437	US-PATENT-3,630,276	.....	c33 N72-20915
US-PATENT-3,611,801	.....	c14 N72-17329	US-PATENT-3,630,304	.....	c11 N72-20244
US-PATENT-3,612,030	.....	c46 N74-23069	US-PATENT-3,630,627	.....	c03 N72-20033
US-PATENT-3,612,391	.....	c11 N72-22245	US-PATENT-3,631,339	.....	c08 N72-20177
US-PATENT-3,612,442	.....	c28 N72-22769	US-PATENT-3,631,351	.....	c10 N72-20224
US-PATENT-3,612,645	.....	c14 N72-22441	US-PATENT-3,631,382	.....	c09 N72-20200
US-PATENT-3,612,743	.....	c09 N72-22198	US-PATENT-3,631,737	.....	c15 N72-28495
US-PATENT-3,612,895	.....	c09 N72-22197	US-PATENT-3,632,081	.....	c15 N72-20442
US-PATENT-3,613,110	.....	c08 N72-21199	US-PATENT-3,632,140	.....	c15 N72-20445
US-PATENT-3,613,111	.....	c08 N72-21200	US-PATENT-3,632,242	.....	c15 N72-20446
US-PATENT-3,613,370	.....	c28 N72-22770	US-PATENT-3,632,923	.....	c09 N72-20199
US-PATENT-3,613,454	.....	c35 N77-27368	US-PATENT-3,632,996	.....	c08 N72-20176
US-PATENT-3,613,457	.....	c15 N72-22482	US-PATENT-3,633,048	.....	c10 N72-20221
US-PATENT-3,613,794	.....	c12 N72-21310	US-PATENT-3,633,110	.....	c07 N72-20141
US-PATENT-3,614,228	.....	c14 N72-21409	US-PATENT-3,634,383	.....	c27 N73-22710
US-PATENT-3,614,327	.....	c08 N72-22162	US-PATENT-3,635,216	.....	c05 N72-20096
US-PATENT-3,614,343	.....	c07 N72-21119	US-PATENT-3,635,573	.....	c37 N77-22478
US-PATENT-3,614,431	.....	c14 N72-21408	US-PATENT-3,635,765	.....	c03 N72-20034
US-PATENT-3,614,475	.....	c10 N72-16172	US-PATENT-3,636,539	.....	c03 N72-20031
US-PATENT-3,614,557	.....	c26 N72-21701	US-PATENT-3,636,564	.....	c05 N72-22092
US-PATENT-3,614,587	.....	c09 N72-22196	US-PATENT-3,636,623	.....	c15 N72-20444
US-PATENT-3,614,648	.....	c09 N72-21247	US-PATENT-3,636,711	.....	c28 N72-20758
US-PATENT-3,614,772	.....	c08 N72-22163	US-PATENT-3,636,966	.....	c05 N72-20097
US-PATENT-3,614,898	.....	c15 N72-21462	US-PATENT-3,637,051	.....	c15 N72-20443
US-PATENT-3,614,899	.....	c09 N72-22195	US-PATENT-3,637,170	.....	c21 N72-21624
US-PATENT-3,615,021	.....	c15 N72-22483	US-PATENT-3,637,312	.....	c14 N72-20379
US-PATENT-3,615,241	.....	c15 N72-21465	US-PATENT-3,637,842	.....	c06 N72-20121
US-PATENT-3,615,465	.....	c06 N72-21094	US-PATENT-3,638,002	.....	c08 N72-21197
US-PATENT-3,615,853	.....	c03 N72-22042	US-PATENT-3,638,066	.....	c10 N72-20225
US-PATENT-3,616,338	.....	c15 N72-21466	US-PATENT-3,638,103	.....	c09 N72-21243
US-PATENT-3,616,528	.....	c03 N72-22041	US-PATENT-3,638,114	.....	c10 N72-20222
US-PATENT-3,617,804	.....	c25 N72-24753	US-PATENT-3,638,224	.....	c09 N72-21244
US-PATENT-3,619,896	.....	c15 N72-22487	US-PATENT-3,639,250	.....	c14 N72-22443
US-PATENT-3,619,924	.....	c11 N72-22247	US-PATENT-3,639,510	.....	c06 N72-22107
US-PATENT-3,620,018	.....	c28 N72-22771	US-PATENT-3,639,809	.....	c15 N72-22486
US-PATENT-3,620,069	.....	c14 N72-22440	US-PATENT-3,639,835	.....	c14 N72-22442
US-PATENT-3,620,076	.....	c11 N72-22246	US-PATENT-3,640,256	.....	c28 N72-22772
US-PATENT-3,620,083	.....	c14 N72-22438	US-PATENT-3,641,470	.....	c35 N78-17359
US-PATENT-3,620,095	.....	c15 N72-21463	US-PATENT-3,647,276	.....	c14 N72-22444
US-PATENT-3,620,585	.....	c15 N72-22490	US-PATENT-3,647,529	.....	c27 N74-23125
US-PATENT-3,620,595	.....	c14 N72-22445	US-PATENT-3,647,924	.....	c11 N72-23215
US-PATENT-3,620,606	.....	c23 N72-22673	US-PATENT-3,648,043	.....	c09 N72-23173
US-PATENT-3,620,718	.....	c17 N72-22535	US-PATENT-3,648,083	.....	c12 N72-25292
US-PATENT-3,620,784	.....	c18 N72-23581	US-PATENT-3,648,152	.....	c03 N72-23048
US-PATENT-3,620,791	.....	c18 N72-22566	US-PATENT-3,648,209	.....	c09 N72-27226
US-PATENT-3,620,846	.....	c31 N72-22874	US-PATENT-3,648,250	.....	c09 N72-25248
US-PATENT-3,621,130	.....	c08 N72-22164	US-PATENT-3,648,256	.....	c08 N72-25207
US-PATENT-3,621,193	.....	c15 N72-23497	US-PATENT-3,648,275	.....	c08 N72-25206
US-PATENT-3,621,194	.....	c15 N72-22491	US-PATENT-3,648,461	.....	c28 N72-23810
US-PATENT-3,621,228	.....	c08 N72-22165	US-PATENT-3,648,516	.....	c35 N74-22095
US-PATENT-3,621,277	.....	c10 N72-22236	US-PATENT-3,649,242	.....	c15 N72-25448
US-PATENT-3,621,285	.....	c09 N72-22200	US-PATENT-3,649,353	.....	c26 N72-28762
US-PATENT-3,621,287	.....	c09 N72-22201	US-PATENT-3,649,356	.....	c15 N72-25447
US-PATENT-3,621,290	.....	c09 N72-22202	US-PATENT-3,649,462	.....	c11 N72-25284
US-PATENT-3,621,294	.....	c09 N72-23171	US-PATENT-3,649,907	.....	c09 N72-23172
US-PATENT-3,621,330	.....	c33 N77-21316	US-PATENT-3,649,921	.....	c05 N72-23085
US-PATENT-3,621,362	.....	c09 N72-22203	US-PATENT-3,649,935	.....	c07 N72-25170
US-PATENT-3,621,372	.....	c09 N72-25249	US-PATENT-3,650,095	.....	c14 N72-23457
US-PATENT-3,621,406	.....	c09 N72-33204	US-PATENT-3,650,474	.....	c28 N72-23809
US-PATENT-3,621,407	.....	c09 N72-21245	US-PATENT-3,653,052	.....	c09 N72-25247
US-PATENT-3,621,565	.....	c09 N72-22199	US-PATENT-3,653,882	.....	c18 N72-25539
US-PATENT-3,623,030	.....	c08 N72-21198	US-PATENT-3,653,970	.....	c03 N72-24037
US-PATENT-3,623,094	.....	c10 N72-22235	US-PATENT-3,654,036	.....	c03 N72-25019
US-PATENT-3,623,107	.....	c07 N72-21117	US-PATENT-3,656,313	.....	c23 N72-25619

NUMBER INDEX

US-PATENT-3,656,317	c33 N72-25911	US-PATENT-3,675,935	c15 N72-29088
US-PATENT-3,656,352	c14 N72-25411	US-PATENT-3,676,084	c17 N72-28536
US-PATENT-3,656,781	c15 N72-25450	US-PATENT-3,676,674	c14 N72-29464
US-PATENT-3,657,549	c14 N72-25409	US-PATENT-3,676,754	c26 N72-28761
US-PATENT-3,657,644	c14 N72-24477	US-PATENT-3,676,772	c10 N72-28240
US-PATENT-3,657,928	c14 N72-25410	US-PATENT-3,676,787	c16 N72-28521
US-PATENT-3,658,295	c15 N72-25451	US-PATENT-3,676,809	c09 N72-29172
US-PATENT-3,658,569	c15 N72-25452	US-PATENT-3,678,191	c10 N72-31273
US-PATENT-3,658,608	c27 N72-25699	US-PATENT-3,678,654	c06 N72-31140
US-PATENT-3,658,974	c15 N72-24522	US-PATENT-3,678,685	c21 N72-31637
US-PATENT-3,659,043	c14 N72-25412	US-PATENT-3,678,771	c37 N74-23070
US-PATENT-3,659,053	c08 N72-25208	US-PATENT-3,679,360	c04 N72-33072
US-PATENT-3,659,148	c09 N72-25250	US-PATENT-3,679,899	c06 N72-31141
US-PATENT-3,659,184	c09 N72-25251	US-PATENT-3,680,142	c09 N72-31235
US-PATENT-3,659,225	c16 N72-25485	US-PATENT-3,680,144	c07 N72-32169
US-PATENT-3,659,292	c08 N72-25209	US-PATENT-3,680,830	c15 N72-31483
US-PATENT-3,660,240	c06 N72-25149	US-PATENT-3,681,581	c08 N72-31226
US-PATENT-3,660,434	c06 N72-25148	US-PATENT-3,686,542	c14 N72-31446
US-PATENT-3,660,704	c15 N72-25456	US-PATENT-3,690,291	c15 N72-32487
US-PATENT-3,660,851	c05 N72-25119	US-PATENT-3,692,533	c05 N72-33096
US-PATENT-3,662,337	c08 N72-25210	US-PATENT-3,693,002	c25 N72-32688
US-PATENT-3,662,441	c05 N72-25121	US-PATENT-3,693,105	c10 N72-33230
US-PATENT-3,662,547	c15 N72-25455	US-PATENT-3,693,346	c15 N72-33477
US-PATENT-3,662,604	c13 N72-25323	US-PATENT-3,693,418	c14 N72-33377
US-PATENT-3,662,661	c31 N72-25842	US-PATENT-3,694,041	c15 N72-33476
US-PATENT-3,662,744	c05 N72-25122	US-PATENT-3,694,094	c14 N72-32452
US-PATENT-3,662,973	c21 N72-25595	US-PATENT-3,694,313	c24 N72-33681
US-PATENT-3,663,346	c18 N72-25541	US-PATENT-3,694,313	c25 N78-27226
US-PATENT-3,663,347	c18 N72-25540	US-PATENT-3,694,581	c08 N72-33172
US-PATENT-3,663,464	c06 N72-25147	US-PATENT-3,694,655	c25 N72-33696
US-PATENT-3,663,521	c06 N72-25152	US-PATENT-3,694,700	c09 N72-33205
US-PATENT-3,663,753	c14 N72-25414	US-PATENT-3,694,753	c07 N72-33146
US-PATENT-3,663,828	c09 N72-25262	US-PATENT-3,694,771	c09 N73-15235
US-PATENT-3,663,839	c09 N72-25260	US-PATENT-3,695,101	c11 N73-12264
US-PATENT-3,663,843	c09 N72-25255	US-PATENT-3,696,418	c09 N73-12211
US-PATENT-3,663,885	c09 N72-25257	US-PATENT-3,696,833	c11 N73-12265
US-PATENT-3,663,886	c09 N72-25258	US-PATENT-3,697,021	c15 N73-12486
US-PATENT-3,663,929	c09 N72-25256	US-PATENT-3,697,630	c15 N73-12489
US-PATENT-3,663,938	c03 N72-25020	US-PATENT-3,697,705	c35 N77-21392
US-PATENT-3,663,940	c09 N72-25252	US-PATENT-3,697,733	c08 N73-12176
US-PATENT-3,663,941	c09 N72-25253	US-PATENT-3,697,950	c08 N73-12177
US-PATENT-3,663,944	c09 N72-25254	US-PATENT-3,697,968	c21 N73-13644
US-PATENT-3,664,185	c15 N72-26371	US-PATENT-3,698,385	c05 N73-13144
US-PATENT-3,664,874	c09 N72-25259	US-PATENT-3,698,412	c14 N73-13418
US-PATENT-3,665,064	c05 N72-25120	US-PATENT-3,698,659	c11 N73-13257
US-PATENT-3,665,307	c15 N72-25457	US-PATENT-3,698,667	c02 N73-13008
US-PATENT-3,665,313	c07 N72-25173	US-PATENT-3,698,848	c15 N73-13464
US-PATENT-3,665,417	c07 N72-25172	US-PATENT-3,699,511	c21 N73-13643
US-PATENT-3,665,467	c14 N72-28437	US-PATENT-3,699,645	c14 N73-13417
US-PATENT-3,665,481	c07 N72-25174	US-PATENT-3,699,799	c15 N73-13463
US-PATENT-3,665,589	c09 N72-25261	US-PATENT-3,699,807	c14 N73-13416
US-PATENT-3,665,669	c15 N72-25454	US-PATENT-3,699,811	c14 N73-13415
US-PATENT-3,665,670	c11 N72-25287	US-PATENT-3,700,005	c15 N73-13462
US-PATENT-3,665,750	c33 N72-25913	US-PATENT-3,700,192	c31 N73-13898
US-PATENT-3,665,751	c32 N72-25877	US-PATENT-3,700,193	c30 N73-12884
US-PATENT-3,665,758	c11 N72-25288	US-PATENT-3,700,291	c15 N73-12488
US-PATENT-3,666,051	c15 N72-25453	US-PATENT-3,700,334	c14 N73-12446
US-PATENT-3,666,120	c03 N72-25021	US-PATENT-3,700,503	c14 N73-12447
US-PATENT-3,666,566	c03 N72-26031	US-PATENT-3,700,538	c18 N73-12604
US-PATENT-3,666,631	c14 N72-25413	US-PATENT-3,700,575	c15 N73-12487
US-PATENT-3,666,718	c06 N72-25151	US-PATENT-3,700,603	c14 N73-14428
US-PATENT-3,666,741	c06 N72-25150	US-PATENT-3,700,812	c10 N73-12244
US-PATENT-3,666,942	c06 N72-25146	US-PATENT-3,700,868	c09 N73-13209
US-PATENT-3,667,010	c26 N72-25679	US-PATENT-3,700,869	c08 N73-12175
US-PATENT-3,667,039	c26 N72-25680	US-PATENT-3,700,893	c14 N73-12444
US-PATENT-3,667,044	c07 N72-25171	US-PATENT-3,700,897	c14 N73-12445
US-PATENT-3,668,956	c15 N72-27485	US-PATENT-3,700,961	c23 N73-13660
US-PATENT-3,669,110	c05 N72-27103	US-PATENT-3,701,631	c17 N73-12547
US-PATENT-3,669,393	c15 N72-27484	US-PATENT-3,701,894	c07 N73-13149
US-PATENT-3,670,097	c23 N72-27728	US-PATENT-3,702,463	c08 N73-13187
US-PATENT-3,670,168	c14 N72-27409	US-PATENT-3,702,520	c32 N73-13921
US-PATENT-3,670,202	c14 N72-27411	US-PATENT-3,702,532	c15 N73-13467
US-PATENT-3,670,241	c14 N72-27408	US-PATENT-3,702,536	c28 N73-13773
US-PATENT-3,670,290	c09 N72-28225	US-PATENT-3,702,575	c15 N73-13466
US-PATENT-3,670,559	c33 N72-27959	US-PATENT-3,702,688	c31 N73-14854
US-PATENT-3,670,563	c14 N72-27412	US-PATENT-3,702,735	c23 N73-13661
US-PATENT-3,670,564	c11 N72-27262	US-PATENT-3,702,762	c06 N73-13129
US-PATENT-3,670,890	c05 N72-27102	US-PATENT-3,702,775	c06 N73-13128
US-PATENT-3,671,105	c26 N72-27784	US-PATENT-3,702,791	c15 N73-13465
US-PATENT-3,671,329	c14 N72-27410	US-PATENT-3,702,841	c18 N73-13562
US-PATENT-3,671,497	c06 N72-27144	US-PATENT-3,702,898	c10 N73-13235
US-PATENT-3,671,798	c10 N72-27246	US-PATENT-3,702,933	c23 N73-13662
US-PATENT-3,672,999	c03 N72-27053	US-PATENT-3,702,951	c09 N73-13208
US-PATENT-3,673,424	c09 N72-27227	US-PATENT-3,702,972	c16 N73-13489
US-PATENT-3,673,440	c09 N72-27228	US-PATENT-3,702,979	c14 N73-13420
US-PATENT-3,675,332	c14 N72-28436	US-PATENT-3,704,659	c14 N73-14427
US-PATENT-3,675,376	c15 N72-28496	US-PATENT-3,705,255	c15 N73-14469
US-PATENT-3,675,712	c03 N72-28025	US-PATENT-3,705,288	c15 N73-14468
US-PATENT-3,675,910	c17 N72-28535	US-PATENT-3,705,316	c09 N73-14214

NUMBER INDEX

US-PATENT-3,705,406	.....	c07 N73-14130	US-PATENT-3,737,639	.....	c10 N73-26230
US-PATENT-3,706,221	.....	c14 N73-14429	US-PATENT-3,737,676	.....	c10 N73-26229
US-PATENT-3,706,230	.....	c31 N73-14855	US-PATENT-3,737,757	.....	c10 N73-26228
US-PATENT-3,706,281	.....	c31 N73-14853	US-PATENT-3,737,762	.....	c14 N73-28486
US-PATENT-3,706,583	.....	c18 N73-14584	US-PATENT-3,737,776	.....	c07 N73-26118
US-PATENT-3,706,970	.....	c21 N73-14692	US-PATENT-3,737,781	.....	c10 N73-25241
US-PATENT-3,708,359	.....	c27 N73-16764	US-PATENT-3,737,815	.....	c09 N73-26195
US-PATENT-3,708,419	.....	c33 N73-16918	US-PATENT-3,737,824	.....	c26 N73-26752
US-PATENT-3,708,671	.....	c14 N73-16483	US-PATENT-3,737,905	.....	c14 N73-26432
US-PATENT-3,708,674	.....	c14 N73-16484	US-PATENT-3,737,912	.....	c07 N73-26117
US-PATENT-3,709,663	.....	c06 N73-16106	US-PATENT-3,739,646	.....	c04 N76-26175
US-PATENT-3,710,122	.....	c16 N73-16536	US-PATENT-3,740,671	.....	c10 N73-27171
US-PATENT-3,710,257	.....	c07 N73-16121	US-PATENT-3,740,725	.....	c08 N73-26176
US-PATENT-3,710,261	.....	c10 N73-16205	US-PATENT-3,741,001	.....	c14 N73-27376
US-PATENT-3,710,329	.....	c10 N73-16206	US-PATENT-3,742,316	.....	c09 N73-27150
US-PATENT-3,711,042	.....	c02 N73-19004	US-PATENT-3,744,128	.....	c09 N73-28083
US-PATENT-3,711,701	.....	c74 N77-21941	US-PATENT-3,744,148	.....	c14 N73-28489
US-PATENT-3,712,120	.....	c14 N73-19421	US-PATENT-3,744,247	.....	c28 N73-27699
US-PATENT-3,712,121	.....	c14 N73-19420	US-PATENT-3,744,294	.....	c14 N73-27379
US-PATENT-3,712,132	.....	c14 N73-20478	US-PATENT-3,744,305	.....	c12 N73-28144
US-PATENT-3,712,195	.....	c14 N73-19419	US-PATENT-3,744,320	.....	c14 N73-28487
US-PATENT-3,712,591	.....	c15 N73-19458	US-PATENT-3,744,480	.....	c05 N73-27941
US-PATENT-3,713,163	.....	c09 N73-19234	US-PATENT-3,744,510	.....	c15 N73-27406
US-PATENT-3,713,290	.....	c28 N73-19793	US-PATENT-3,744,738	.....	c14 N73-27378
US-PATENT-3,713,480	.....	c05 N73-20137	US-PATENT-3,744,739	.....	c15 N77-10112
US-PATENT-3,713,987	.....	c15 N73-20514	US-PATENT-3,744,794	.....	c14 N73-27377
US-PATENT-3,714,332	.....	c15 N73-19457	US-PATENT-3,744,912	.....	c16 N73-30476
US-PATENT-3,714,405	.....	c10 N73-20253	US-PATENT-3,744,913	.....	c14 N73-28490
US-PATENT-3,714,432	.....	c14 N73-20475	US-PATENT-3,744,972	.....	c17 N73-27446
US-PATENT-3,714,526	.....	c09 N73-19235	US-PATENT-3,745,082	.....	c18 N73-30532
US-PATENT-3,714,588	.....	c09 N73-20231	US-PATENT-3,745,089	.....	c06 N73-27086
US-PATENT-3,714,624	.....	c14 N73-20474	US-PATENT-3,745,090	.....	c04 N73-27052
US-PATENT-3,714,645	.....	c08 N73-20217	US-PATENT-3,745,149	.....	c06 N73-27980
US-PATENT-3,714,821	.....	c14 N73-20476	US-PATENT-3,745,255	.....	c07 N73-28012
US-PATENT-3,714,833	.....	c11 N73-20267	US-PATENT-3,745,300	.....	c15 N73-28515
US-PATENT-3,715,092	.....	c03 N73-20039	US-PATENT-3,745,352	.....	c08 N73-30135
US-PATENT-3,715,152	.....	c23 N73-20741	US-PATENT-3,745,357	.....	c14 N73-28488
US-PATENT-3,715,590	.....	c14 N73-20477	US-PATENT-3,745,410	.....	c09 N73-30181
US-PATENT-3,715,600	.....	c03 N73-20040	US-PATENT-3,745,475	.....	c14 N73-30386
US-PATENT-3,715,660	.....	c07 N73-20175	US-PATENT-3,745,739	.....	c15 N73-27405
US-PATENT-3,715,663	.....	c07 N73-20174	US-PATENT-3,745,816	.....	c33 N73-27796
US-PATENT-3,715,693	.....	c09 N73-20232	US-PATENT-3,746,998	.....	c07 N73-30113
US-PATENT-3,715,723	.....	c07 N73-20176	US-PATENT-3,747,111	.....	c07 N73-28013
US-PATENT-3,715,915	.....	c32 N73-20740	US-PATENT-3,748,722	.....	c15 N73-33383
US-PATENT-3,718,863	.....	c10 N73-20254	US-PATENT-3,748,853	.....	c23 N73-30665
US-PATENT-3,719,891	.....	c07 N73-25160	US-PATENT-3,748,905	.....	c14 N73-30395
US-PATENT-3,720,075	.....	c33 N73-25952	US-PATENT-3,749,123	.....	c15 N73-30459
US-PATENT-3,720,208	.....	c05 N73-25125	US-PATENT-3,749,156	.....	c31 N73-30829
US-PATENT-3,723,475	.....	c14 N73-25462	US-PATENT-3,749,205	.....	c15 N73-30460
US-PATENT-3,728,861	.....	c28 N73-24783	US-PATENT-3,749,332	.....	c31 N73-32750
US-PATENT-3,729,068	.....	c15 N73-25512	US-PATENT-3,749,362	.....	c15 N73-30457
US-PATENT-3,729,129	.....	c08 N73-25206	US-PATENT-3,749,831	.....	c07 N73-30115
US-PATENT-3,729,260	.....	c14 N73-25463	US-PATENT-3,749,911	.....	c14 N73-30389
US-PATENT-3,729,343	.....	c14 N73-24472	US-PATENT-3,750,016	.....	c14 N73-30388
US-PATENT-3,729,343	.....	c35 N76-15434	US-PATENT-3,750,035	.....	c33 N77-13315
US-PATENT-3,729,676	.....	c14 N73-24473	US-PATENT-3,750,067	.....	c09 N73-30185
US-PATENT-3,729,736	.....	c07 N73-25161	US-PATENT-3,750,131	.....	c10 N73-30205
US-PATENT-3,729,743	.....	c07 N73-24176	US-PATENT-3,750,168	.....	c21 N73-30641
US-PATENT-3,729,935	.....	c28 N73-24784	US-PATENT-3,750,479	.....	c05 N73-30078
US-PATENT-3,730,287	.....	c11 N73-26238	US-PATENT-3,751,123	.....	c15 N73-30458
US-PATENT-3,730,891	.....	c18 N73-26572	US-PATENT-3,751,727	.....	c05 N73-32012
US-PATENT-3,731,528	.....	c12 N73-25262	US-PATENT-3,751,733	.....	c05 N73-32013
US-PATENT-3,731,531	.....	c14 N73-25460	US-PATENT-3,751,913	.....	c06 N73-30097
US-PATENT-3,732,040	.....	c15 N73-24513	US-PATENT-3,751,980	.....	c14 N73-32326
US-PATENT-3,732,158	.....	c17 N73-24569	US-PATENT-3,752,556	.....	c35 N74-17153
US-PATENT-3,732,397	.....	c33 N74-14935	US-PATENT-3,752,559	.....	c14 N73-30393
US-PATENT-3,732,405	.....	c10 N73-25240	US-PATENT-3,752,564	.....	c23 N73-30666
US-PATENT-3,732,409	.....	c08 N73-26175	US-PATENT-3,752,665	.....	c18 N73-32437
US-PATENT-3,732,567	.....	c14 N73-25461	US-PATENT-3,752,847	.....	c06 N73-30098
US-PATENT-3,733,350	.....	c06 N73-26100	US-PATENT-3,752,986	.....	c14 N73-30392
US-PATENT-3,733,424	.....	c32 N73-26910	US-PATENT-3,752,993	.....	c21 N73-30640
US-PATENT-3,733,463	.....	c14 N73-26430	US-PATENT-3,752,996	.....	c91 N74-13130
US-PATENT-3,734,432	.....	c02 N73-26004	US-PATENT-3,753,148	.....	c09 N73-32111
US-PATENT-3,735,206	.....	c10 N73-25243	US-PATENT-3,754,236	.....	c08 N73-32081
US-PATENT-3,735,591	.....	c25 N73-25760	US-PATENT-3,754,263	.....	c09 N73-32110
US-PATENT-3,736,453	.....	c33 N77-22386	US-PATENT-3,754,976	.....	c15 N73-32360
US-PATENT-3,736,607	.....	c02 N73-26006	US-PATENT-3,755,265	.....	c06 N73-33076
US-PATENT-3,736,764	.....	c05 N73-26071	US-PATENT-3,755,283	.....	c06 N73-32029
US-PATENT-3,736,849	.....	c14 N73-26431	US-PATENT-3,755,686	.....	c03 N73-31988
US-PATENT-3,736,938	.....	c05 N73-27062	US-PATENT-3,756,920	.....	c05 N73-32011
US-PATENT-3,736,956	.....	c15 N73-26472	US-PATENT-3,757,183	.....	c09 N73-32107
US-PATENT-3,737,117	.....	c31 N73-26876	US-PATENT-3,757,476	.....	c31 N73-32749
US-PATENT-3,737,118	.....	c15 N73-25513	US-PATENT-3,757,568	.....	c14 N73-32323
US-PATENT-3,737,121	.....	c02 N73-26005	US-PATENT-3,757,659	.....	c14 N73-32322
US-PATENT-3,737,181	.....	c33 N73-26958	US-PATENT-3,758,112	.....	c05 N73-32014
US-PATENT-3,737,214	.....	c52 N76-30793	US-PATENT-3,758,718	.....	c10 N73-32143
US-PATENT-3,737,217	.....	c05 N73-26072	US-PATENT-3,758,741	.....	c15 N73-32358
US-PATENT-3,737,231	.....	c07 N73-26119	US-PATENT-3,758,781	.....	c14 N73-32317
US-PATENT-3,737,237	.....	c26 N73-26751	US-PATENT-3,758,877	.....	c16 N73-32391

NUMBER INDEX

US-PATENT-3,759,152	c14 N73-32319	US-PATENT-3,783,250	c62 N74-14920
US-PATENT-3,759,249	c05 N73-32015	US-PATENT-3,783,354	c33 N74-14956
US-PATENT-3,759,443	c28 N73-32606	US-PATENT-3,783,399	c33 N74-14939
US-PATENT-3,759,588	c15 N73-32359	US-PATENT-3,783,443	c35 N74-16135
US-PATENT-3,759,672	c14 N73-32320	US-PATENT-3,784,499	c27 N74-17283
US-PATENT-3,759,746	c09 N73-32108	US-PATENT-3,787,959	c37 N74-18128
US-PATENT-3,759,747	c44 N74-19692	US-PATENT-3,788,163	c37 N74-18127
US-PATENT-3,759,787	c22 N73-32528	US-PATENT-3,789,654	c25 N74-18551
US-PATENT-3,760,239	c09 N73-32112	US-PATENT-3,789,920	c34 N74-18552
US-PATENT-3,760,248	c10 N73-32145	US-PATENT-3,789,947	c37 N74-18125
US-PATENT-3,760,257	c09 N73-32109	US-PATENT-3,790,037	c54 N74-17853
US-PATENT-3,760,268	c14 N73-32318	US-PATENT-3,790,347	c37 N74-18123
US-PATENT-3,760,394	c10 N73-32144	US-PATENT-3,790,409	c44 N74-19693
US-PATENT-3,762,884	c17 N73-32414	US-PATENT-3,790,432	c37 N74-18126
US-PATENT-3,762,918	c17 N73-32415	US-PATENT-3,790,650	c31 N74-18124
US-PATENT-3,763,204	c06 N73-32030	US-PATENT-3,790,795	c35 N74-18088
US-PATENT-3,763,552	c26 N73-32571	US-PATENT-3,790,906	c33 N74-17927
US-PATENT-3,763,691	c14 N73-32327	US-PATENT-3,791,207	c09 N74-17955
US-PATENT-3,763,708	c35 N74-18323	US-PATENT-3,792,399	c33 N74-17928
US-PATENT-3,763,740	c11 N73-32152	US-PATENT-3,793,109	c31 N74-18089
US-PATENT-3,763,928	c33 N73-32818	US-PATENT-3,795,134	c09 N74-19528
US-PATENT-3,764,097	c02 N74-10034	US-PATENT-3,795,448	c72 N74-19310
US-PATENT-3,764,209	c14 N73-33361	US-PATENT-3,795,840	c33 N74-17929
US-PATENT-3,764,220	c16 N73-33397	US-PATENT-3,795,858	c35 N74-18090
US-PATENT-3,764,790	c33 N74-10223	US-PATENT-3,795,862	c33 N74-17930
US-PATENT-3,764,850	c33 N74-10195	US-PATENT-3,795,900	c35 N74-17885
US-PATENT-3,764,933	c33 N74-10194	US-PATENT-3,795,910	c44 N74-19870
US-PATENT-3,765,229	c35 N74-10415	US-PATENT-3,796,473	c37 N74-20063
US-PATENT-3,765,958	c26 N74-10521	US-PATENT-3,796,592	c24 N74-19769
US-PATENT-3,766,315	c32 N74-10132	US-PATENT-3,797,098	c37 N74-21057
US-PATENT-3,766,380	c35 N74-11284	US-PATENT-3,797,098	c37 N79-13364
US-PATENT-3,767,212	c37 N74-10474	US-PATENT-3,797,919	c70 N74-21300
US-PATENT-3,769,544	c31 N78-17238	US-PATENT-3,798,741	c31 N74-21059
US-PATENT-3,769,623	c32 N74-11000	US-PATENT-3,798,748	c37 N74-21055
US-PATENT-3,769,689	c37 N74-11301	US-PATENT-3,798,778	c19 N74-21015
US-PATENT-3,769,834	c52 N74-10975	US-PATENT-3,798,896	c37 N74-21060
US-PATENT-3,770,021	c33 N74-11050	US-PATENT-3,799,149	c52 N74-20728
US-PATENT-3,770,903	c35 N74-11283	US-PATENT-3,799,475	c02 N74-20646
US-PATENT-3,770,933	c37 N74-11300	US-PATENT-3,799,793	c74 N74-20008
US-PATENT-3,771,037	c08 N74-10942	US-PATENT-3,799,813	c76 N74-20329
US-PATENT-3,771,040	c33 N74-11049	US-PATENT-3,800,074	c36 N74-20009
US-PATENT-3,771,074	c36 N74-11313	US-PATENT-3,800,082	c71 N74-21014
US-PATENT-3,771,959	c25 N74-12813	US-PATENT-3,800,224	c32 N74-19790
US-PATENT-3,772,174	c27 N74-13270	US-PATENT-3,800,227	c32 N74-20809
US-PATENT-3,772,216	c27 N74-12812	US-PATENT-3,800,237	c32 N74-19788
US-PATENT-3,772,220	c27 N74-12814	US-PATENT-3,800,253	c37 N74-21056
US-PATENT-3,772,272	c33 N74-12887	US-PATENT-3,801,617	c37 N74-21058
US-PATENT-3,772,418	c31 N74-13177	US-PATENT-3,802,249	c35 N74-21019
US-PATENT-3,772,691	c32 N74-12912	US-PATENT-3,802,253	c52 N74-20726
US-PATENT-3,773,038	c52 N74-12778	US-PATENT-3,802,262	c35 N74-21048
US-PATENT-3,773,913	c46 N74-13011	US-PATENT-3,802,660	c37 N74-21065
US-PATENT-3,775,101	c37 N74-13179	US-PATENT-3,802,753	c37 N74-21064
US-PATENT-3,775,570	c35 N78-29421	US-PATENT-3,802,779	c74 N74-21304
US-PATENT-3,776,028	c35 N74-13129	US-PATENT-3,803,090	c27 N74-21156
US-PATENT-3,776,432	c37 N74-13178	US-PATENT-3,803,090	c27 N76-32315
US-PATENT-3,776,455	c04 N74-13420	US-PATENT-3,803,393	c60 N74-20836
US-PATENT-3,777,200	c33 N74-12913	US-PATENT-3,803,445	c32 N74-20813
US-PATENT-3,777,490	c20 N74-13502	US-PATENT-3,803,617	c32 N74-20863
US-PATENT-3,777,546	c35 N74-13132	US-PATENT-3,804,472	c37 N74-21061
US-PATENT-3,777,552	c38 N74-15130	US-PATENT-3,804,506	c33 N74-20861
US-PATENT-3,777,605	c39 N74-13131	US-PATENT-3,804,525	c36 N74-21091
US-PATENT-3,777,811	c34 N78-17336	US-PATENT-3,804,703	c37 N74-21063
US-PATENT-3,777,942	c54 N74-12779	US-PATENT-3,805,266	c32 N74-20864
US-PATENT-3,778,685	c33 N74-12951	US-PATENT-3,805,303	c54 N74-20725
US-PATENT-3,778,786	c60 N74-12888	US-PATENT-3,805,622	c35 N74-21062
US-PATENT-3,778,791	c36 N74-13205	US-PATENT-3,806,756	c33 N74-21850
US-PATENT-3,779,788	c70 N74-13436	US-PATENT-3,806,802	c35 N74-21017
US-PATENT-3,779,788	c74 N78-15879	US-PATENT-3,806,815	c32 N74-20811
US-PATENT-3,780,151	c31 N74-14133	US-PATENT-3,806,816	c32 N74-20810
US-PATENT-3,780,424	c44 N74-14784	US-PATENT-3,806,831	c33 N74-20862
US-PATENT-3,780,563	c35 N74-15092	US-PATENT-3,806,834	c36 N76-18427
US-PATENT-3,780,827	c07 N74-15453	US-PATENT-3,806,835	c33 N74-20859
US-PATENT-3,780,966	c19 N74-15089	US-PATENT-3,806,932	c33 N74-20860
US-PATENT-3,781,111	c36 N74-15185	US-PATENT-3,807,384	c34 N74-20339
US-PATENT-3,781,549	c35 N74-15090	US-PATENT-3,807,656	c18 N74-22136
US-PATENT-3,781,562	c35 N74-15091	US-PATENT-3,808,464	c33 N74-22814
US-PATENT-3,781,902	c35 N74-15831	US-PATENT-3,808,511	c33 N74-22864
US-PATENT-3,781,933	c54 N74-14845	US-PATENT-3,808,517	c33 N74-22885
US-PATENT-3,781,958	c37 N74-15128	US-PATENT-3,809,481	c35 N74-23040
US-PATENT-3,782,177	c38 N74-15395	US-PATENT-3,809,601	c37 N74-23064
US-PATENT-3,782,181	c34 N74-15652	US-PATENT-3,809,800	c33 N74-22865
US-PATENT-3,782,205	c35 N74-15094	US-PATENT-3,809,871	c52 N74-22771
US-PATENT-3,782,334	c51 N74-15778	US-PATENT-3,810,829	c31 N74-23065
US-PATENT-3,782,698	c35 N74-15093	US-PATENT-3,811,044	c34 N74-23066
US-PATENT-3,782,699	c35 N74-15126	US-PATENT-3,811,094	c33 N74-21851
US-PATENT-3,782,737	c37 N74-15125	US-PATENT-3,811,429	c52 N74-27566
US-PATENT-3,782,825	c35 N74-15146	US-PATENT-3,812,358	c35 N74-26949
US-PATENT-3,782,835	c74 N74-15095	US-PATENT-3,812,783	c28 N74-27425
US-PATENT-3,782,904	c35 N74-15127	US-PATENT-3,812,924	c35 N74-26945

NUMBER INDEX

US-PATENT-3,812,936	.....	c37 N74-26976	US-PATENT-3,849,865	.....	c37 N75-13261
US-PATENT-3,813,183	.....	c37 N74-25968	US-PATENT-3,849,875	.....	c35 N75-13213
US-PATENT-3,813,875	.....	c15 N74-27360	US-PATENT-3,849,877	.....	c24 N75-13032
US-PATENT-3,813,937	.....	c34 N74-27859	US-PATENT-3,850,169	.....	c54 N75-13531
US-PATENT-3,814,083	.....	c52 N74-26626	US-PATENT-3,850,388	.....	c05 N75-12930
US-PATENT-3,814,350	.....	c18 N74-27397	US-PATENT-3,850,567	.....	c31 N75-13111
US-PATENT-3,814,645	.....	c24 N74-30001	US-PATENT-3,850,754	.....	c51 N75-13502
US-PATENT-3,814,653	.....	c24 N74-27035	US-PATENT-3,851,162	.....	c60 N75-13539
US-PATENT-3,814,678	.....	c25 N74-26948	US-PATENT-3,851,238	.....	c33 N75-13139
US-PATENT-3,814,939	.....	c25 N74-26947	US-PATENT-3,851,250	.....	c15 N75-13007
US-PATENT-3,815,048	.....	c33 N74-26732	US-PATENT-3,853,003	.....	c09 N75-12969
US-PATENT-3,815,109	.....	c52 N74-26625	US-PATENT-3,853,075	.....	c09 N75-12968
US-PATENT-3,815,205	.....	c33 N74-26977	US-PATENT-3,854,097	.....	c75 N75-13625
US-PATENT-3,815,969	.....	c35 N74-26946	US-PATENT-3,854,113	.....	c37 N75-13265
US-PATENT-3,816,657	.....	c32 N74-26654	US-PATENT-3,855,873	.....	c37 N75-13266
US-PATENT-3,816,785	.....	c73 N74-26767	US-PATENT-3,856,042	.....	c37 N75-15050
US-PATENT-3,817,082	.....	c34 N74-27730	US-PATENT-3,856,402	.....	c36 N75-15028
US-PATENT-3,817,084	.....	c31 N74-27900	US-PATENT-3,856,471	.....	c25 N75-14844
US-PATENT-3,817,622	.....	c75 N74-30156	US-PATENT-3,856,534	.....	c23 N75-14834
US-PATENT-3,817,627	.....	c35 N74-27860	US-PATENT-3,857,031	.....	c35 N75-15014
US-PATENT-3,818,325	.....	c44 N74-27519	US-PATENT-3,857,045	.....	c33 N75-14957
US-PATENT-3,818,346	.....	c33 N74-27705	US-PATENT-3,859,119	.....	c36 N75-15029
US-PATENT-3,818,767	.....	c35 N74-28097	US-PATENT-3,859,714	.....	c37 N75-15992
US-PATENT-3,818,775	.....	c37 N74-27901	US-PATENT-3,859,736	.....	c09 N75-15662
US-PATENT-3,818,814	.....	c31 N74-27902	US-PATENT-3,859,840	.....	c35 N75-15932
US-PATENT-3,819,299	.....	c37 N74-27904	US-PATENT-3,859,845	.....	c35 N75-15931
US-PATENT-3,819,419	.....	c34 N74-27861	US-PATENT-3,860,342	.....	c35 N75-16783
US-PATENT-3,819,440	.....	c32 N74-27612	US-PATENT-3,860,393	.....	c25 N76-18245
US-PATENT-3,819,550	.....	c27 N74-27037	US-PATENT-3,860,858	.....	c33 N75-15874
US-PATENT-3,820,095	.....	c33 N74-27862	US-PATENT-3,860,921	.....	c32 N75-15854
US-PATENT-3,820,286	.....	c37 N74-27905	US-PATENT-3,860,946	.....	c33 N79-11314
US-PATENT-3,820,388	.....	c35 N74-27865	US-PATENT-3,863,881	.....	c37 N75-18573
US-PATENT-3,820,529	.....	c52 N74-27864	US-PATENT-3,864,060	.....	c35 N75-19611
US-PATENT-3,820,630	.....	c07 N74-27490	US-PATENT-3,864,239	.....	c37 N75-19684
US-PATENT-3,820,741	.....	c37 N74-27903	US-PATENT-3,864,542	.....	c37 N75-19683
US-PATENT-3,820,918	.....	c07 N74-28226	US-PATENT-3,864,797	.....	c20 N75-18310
US-PATENT-3,821,102	.....	c34 N74-27744	US-PATENT-3,864,953	.....	c35 N75-19615
US-PATENT-3,821,462	.....	c33 N74-27683	US-PATENT-3,864,960	.....	c35 N75-19612
US-PATENT-3,821,546	.....	c33 N74-27682	US-PATENT-3,865,442	.....	c37 N75-18574
US-PATENT-3,821,556	.....	c74 N74-27866	US-PATENT-3,865,975	.....	c36 N75-19652
US-PATENT-3,824,707	.....	c09 N74-30597	US-PATENT-3,866,022	.....	c33 N75-19519
US-PATENT-3,825,760	.....	c19 N74-29410	US-PATENT-3,866,114	.....	c33 N75-18477
US-PATENT-3,826,448	.....	c08 N74-30421	US-PATENT-3,866,128	.....	c33 N75-19515
US-PATENT-3,826,726	.....	c25 N74-30502	US-PATENT-3,866,210	.....	c33 N75-19517
US-PATENT-3,826,729	.....	c20 N74-31269	US-PATENT-3,866,233	.....	c33 N75-19516
US-PATENT-3,826,964	.....	c33 N74-29556	US-PATENT-3,866,863	.....	c18 N75-19329
US-PATENT-3,827,288	.....	c71 N74-31148	US-PATENT-3,867,677	.....	c33 N75-19524
US-PATENT-3,827,807	.....	c89 N74-30886	US-PATENT-3,868,591	.....	c36 N75-19655
US-PATENT-3,828,137	.....	c32 N74-30524	US-PATENT-3,868,830	.....	c77 N75-20139
US-PATENT-3,828,138	.....	c32 N74-30523	US-PATENT-3,868,856	.....	c35 N75-19614
US-PATENT-3,828,524	.....	c34 N74-30680	US-PATENT-3,869,151	.....	c37 N75-19686
US-PATENT-3,829,237	.....	c07 N74-31270	US-PATENT-3,869,160	.....	c37 N75-19685
US-PATENT-3,829,839	.....	c60 N76-18800	US-PATENT-3,869,210	.....	c36 N75-19653
US-PATENT-3,830,060	.....	c44 N74-33379	US-PATENT-3,869,212	.....	c35 N75-19613
US-PATENT-3,830,094	.....	c35 N74-32879	US-PATENT-3,869,597	.....	c77 N75-20140
US-PATENT-3,830,335	.....	c07 N74-32418	US-PATENT-3,869,615	.....	c35 N75-19616
US-PATENT-3,830,431	.....	c07 N74-33218	US-PATENT-3,869,624	.....	c33 N75-18479
US-PATENT-3,830,552	.....	c37 N74-32921	US-PATENT-3,869,659	.....	c33 N75-19522
US-PATENT-3,830,609	.....	c31 N74-32920	US-PATENT-3,869,667	.....	c33 N75-19521
US-PATENT-3,830,673	.....	c28 N74-33209	US-PATENT-3,869,676	.....	c33 N75-19520
US-PATENT-3,831,098	.....	c33 N74-32711	US-PATENT-3,869,680	.....	c36 N75-19654
US-PATENT-3,831,117	.....	c33 N74-32712	US-PATENT-3,869,779	.....	c26 N75-19408
US-PATENT-3,831,142	.....	c32 N74-32598	US-PATENT-3,872,395	.....	c33 N75-19518
US-PATENT-3,832,290	.....	c20 N74-32919	US-PATENT-3,874,240	.....	c35 N75-25122
US-PATENT-3,832,735	.....	c54 N74-32546	US-PATENT-3,874,635	.....	c37 N75-25185
US-PATENT-3,832,764	.....	c37 N74-32918	US-PATENT-3,874,677	.....	c37 N75-21631
US-PATENT-3,832,781	.....	c35 N74-32877	US-PATENT-3,875,332	.....	c32 N75-21486
US-PATENT-3,832,903	.....	c35 N74-32878	US-PATENT-3,875,394	.....	c33 N75-26243
US-PATENT-3,833,322	.....	c31 N74-32917	US-PATENT-3,875,404	.....	c35 N75-23910
US-PATENT-3,833,336	.....	c25 N74-33378	US-PATENT-3,875,435	.....	c20 N75-24837
US-PATENT-3,833,857	.....	c33 N74-32660	US-PATENT-3,875,500	.....	c35 N75-21582
US-PATENT-3,835,318	.....	c35 N74-34857	US-PATENT-3,875,584	.....	c32 N75-21485
US-PATENT-3,837,285	.....	c85 N74-34672	US-PATENT-3,877,833	.....	c37 N75-25186
US-PATENT-3,837,908	.....	c76 N79-16678	US-PATENT-3,878,464	.....	c32 N75-24981
US-PATENT-3,840,829	.....	c33 N74-34638	US-PATENT-3,881,132	.....	c33 N77-21315
US-PATENT-3,841,973	.....	c35 N75-12272	US-PATENT-3,882,417	.....	c36 N78-17366
US-PATENT-3,842,485	.....	c37 N75-12326	US-PATENT-3,882,417	.....	c36 N79-21333
US-PATENT-3,842,509	.....	c35 N75-12273	US-PATENT-3,882,530	.....	c76 N75-25730
US-PATENT-3,842,656	.....	c76 N75-12810	US-PATENT-3,882,634	.....	c51 N75-25503
US-PATENT-3,846,243	.....	c25 N75-12086	US-PATENT-3,882,719	.....	c14 N75-24794
US-PATENT-3,847,115	.....	c31 N75-12161	US-PATENT-3,882,732	.....	c12 N75-24774
US-PATENT-3,847,141	.....	c35 N75-12271	US-PATENT-3,882,846	.....	c05 N75-24716
US-PATENT-3,847,208	.....	c34 N75-12222	US-PATENT-3,883,095	.....	c07 N75-24736
US-PATENT-3,847,652	.....	c25 N75-12087	US-PATENT-3,883,215	.....	c35 N75-25124
US-PATENT-3,847,689	.....	c74 N75-12732	US-PATENT-3,883,436	.....	c74 N75-25706
US-PATENT-3,848,190	.....	c35 N75-12270	US-PATENT-3,883,689	.....	c35 N75-25123
US-PATENT-3,849,554	.....	c52 N75-15270	US-PATENT-3,883,785	.....	c09 N75-24758
US-PATENT-3,849,668	.....	c54 N75-12616	US-PATENT-3,883,812	.....	c33 N75-25041
US-PATENT-3,849,720	.....	c33 N77-26387	US-PATENT-3,883,817	.....	c33 N75-25040
			US-PATENT-3,883,872	.....	c32 N75-24982

NUMBER INDEX

US-PATENT-3,884,432	.....	c05 W75-25914	US-PATENT-3,920,339	.....	c27 W76-14264
US-PATENT-3,884,765	.....	c35 W75-27330	US-PATENT-3,920,413	.....	c44 W76-14595
US-PATENT-3,887,233	.....	c05 W75-25915	US-PATENT-3,920,416	.....	c44 W76-18642
US-PATENT-3,887,345	.....	c35 W75-26334	US-PATENT-3,922,930	.....	c37 W76-15457
US-PATENT-3,887,365	.....	c37 W75-26371	US-PATENT-3,923,166	.....	c37 W76-15460
US-PATENT-3,888,362	.....	c54 W75-27758	US-PATENT-3,924,068	.....	c32 W76-16249
US-PATENT-3,888,410	.....	c34 W75-26282	US-PATENT-3,924,137	.....	c72 W76-15860
US-PATENT-3,888,561	.....	c35 W75-27328	US-PATENT-3,924,164	.....	c33 W76-15373
US-PATENT-3,888,705	.....	c25 W75-26043	US-PATENT-3,924,176	.....	c35 W76-16390
US-PATENT-3,889,064	.....	c32 W75-26195	US-PATENT-3,924,183	.....	c33 W76-16331
US-PATENT-3,889,122	.....	c37 W75-26372	US-PATENT-3,924,200	.....	c35 W76-15436
US-PATENT-3,889,155	.....	c33 W75-26244	US-PATENT-3,924,237	.....	c32 W76-15330
US-PATENT-3,889,182	.....	c33 W75-26245	US-PATENT-3,924,239	.....	c35 W76-15435
US-PATENT-3,889,185	.....	c33 W75-26246	US-PATENT-3,924,267	.....	c35 W76-16391
US-PATENT-3,889,264	.....	c32 W75-26194	US-PATENT-3,924,444	.....	c35 W76-15432
US-PATENT-3,891,311	.....	c54 W75-27759	US-PATENT-3,925,104	.....	c35 W76-15434
US-PATENT-3,891,452	.....	c27 W75-27160	US-PATENT-3,925,312	.....	c23 W76-15268
US-PATENT-3,891,533	.....	c33 W75-27252	US-PATENT-3,926,482	.....	c37 W76-15461
US-PATENT-3,891,848	.....	c45 W75-27585	US-PATENT-3,926,567	.....	c27 W76-15311
US-PATENT-3,891,851	.....	c35 W75-27331	US-PATENT-3,927,227	.....	c12 W76-15189
US-PATENT-3,893,449	.....	c54 W75-27760	US-PATENT-3,927,324	.....	c35 W76-15433
US-PATENT-3,893,458	.....	c54 W75-27761	US-PATENT-3,927,408	.....	c32 W76-15329
US-PATENT-3,893,573	.....	c18 W75-27041	US-PATENT-3,928,708	.....	c27 W76-16230
US-PATENT-3,894,289	.....	c36 W75-27364	US-PATENT-3,929,119	.....	c75 W76-17951
US-PATENT-3,894,677	.....	c24 W75-28135	US-PATENT-3,929,305	.....	c34 W76-17317
US-PATENT-3,894,887	.....	c44 W76-18641	US-PATENT-3,929,306	.....	c18 W76-17185
US-PATENT-3,895,521	.....	c35 W75-29381	US-PATENT-3,929,364	.....	c35 W76-16392
US-PATENT-3,895,912	.....	c35 W75-29380	US-PATENT-3,930,628	.....	c02 W76-16014
US-PATENT-3,896,758	.....	c35 W75-33367	US-PATENT-3,930,735	.....	c66 W76-19888
US-PATENT-3,896,955	.....	c37 W77-22480	US-PATENT-3,931,132	.....	c27 W76-16228
US-PATENT-3,898,578	.....	c33 W75-30428	US-PATENT-3,931,447	.....	c27 W76-16229
US-PATENT-3,898,730	.....	c24 W75-30260	US-PATENT-3,931,456	.....	c33 W76-16332
US-PATENT-3,898,882	.....	c35 W75-30503	US-PATENT-3,931,462	.....	c45 W76-17656
US-PATENT-3,899,224	.....	c37 W75-30562	US-PATENT-3,931,516	.....	c35 W76-16393
US-PATENT-3,899,252	.....	c35 W75-30502	US-PATENT-3,931,532	.....	c44 W76-16612
US-PATENT-3,899,517	.....	c23 W75-30256	US-PATENT-3,932,262	.....	c25 W79-10163
US-PATENT-3,899,680	.....	c73 W75-30876	US-PATENT-3,936,927	.....	c37 W76-19437
US-PATENT-3,899,696	.....	c36 W75-30524	US-PATENT-3,937,055	.....	c37 W76-18454
US-PATENT-3,899,745	.....	c33 W75-30429	US-PATENT-3,937,212	.....	c33 W76-19338
US-PATENT-3,900,705	.....	c33 W75-30431	US-PATENT-3,937,215	.....	c52 W76-19785
US-PATENT-3,900,741	.....	c35 W75-30504	US-PATENT-3,937,387	.....	c37 W76-18455
US-PATENT-3,900,847	.....	c03 W75-30132	US-PATENT-3,937,533	.....	c37 W76-18459
US-PATENT-3,902,143	.....	c33 W75-30430	US-PATENT-3,937,555	.....	c35 W76-18402
US-PATENT-3,903,699	.....	c44 W75-32581	US-PATENT-3,937,661	.....	c37 W76-18456
US-PATENT-3,905,356	.....	c33 W75-31329	US-PATENT-3,937,945	.....	c74 W76-18913
US-PATENT-3,905,660	.....	c37 W75-31446	US-PATENT-3,938,035	.....	c33 W76-19339
US-PATENT-3,906,231	.....	c33 W75-31332	US-PATENT-3,938,037	.....	c26 W76-18257
US-PATENT-3,906,296	.....	c33 W75-31331	US-PATENT-3,938,162	.....	c32 W76-18295
US-PATENT-3,906,374	.....	c33 W75-31330	US-PATENT-3,938,182	.....	c33 W76-18353
US-PATENT-3,906,393	.....	c36 W75-31427	US-PATENT-3,938,188	.....	c33 W76-18345
US-PATENT-3,906,397	.....	c36 W75-31426	US-PATENT-3,938,367	.....	c35 W76-18401
US-PATENT-3,906,398	.....	c36 W75-32441	US-PATENT-3,938,373	.....	c35 W76-18400
US-PATENT-3,906,769	.....	c24 W75-33181	US-PATENT-3,938,742	.....	c07 W76-18117
US-PATENT-3,906,788	.....	c35 W75-33369	US-PATENT-3,938,892	.....	c74 W76-19935
US-PATENT-3,906,913	.....	c37 W76-18457	US-PATENT-3,938,956	.....	c35 W76-18403
US-PATENT-3,906,954	.....	c52 W75-33640	US-PATENT-3,939,048	.....	c37 W76-18458
US-PATENT-3,907,312	.....	c37 W75-33395	US-PATENT-3,939,439	.....	c36 W76-18428
US-PATENT-3,907,646	.....	c35 W75-33368	US-PATENT-3,940,097	.....	c34 W76-18364
US-PATENT-3,907,686	.....	c34 W75-33342	US-PATENT-3,940,621	.....	c34 W76-18374
US-PATENT-3,908,118	.....	c38 W78-17395	US-PATENT-3,941,355	.....	c37 W76-19436
US-PATENT-3,909,602	.....	c38 W78-17396	US-PATENT-3,942,398	.....	c37 W76-20480
US-PATENT-3,910,035	.....	c20 W76-14190	US-PATENT-3,943,368	.....	c74 W76-20958
US-PATENT-3,910,039	.....	c20 W76-14191	US-PATENT-3,943,442	.....	c76 W76-20994
US-PATENT-3,910,257	.....	c52 W76-14757	US-PATENT-3,943,763	.....	c04 W76-20114
US-PATENT-3,910,307	.....	c37 W76-14463	US-PATENT-3,945,801	.....	c45 W76-21742
US-PATENT-3,910,533	.....	c18 W76-14186	US-PATENT-3,945,879	.....	c37 W76-21554
US-PATENT-3,910,814	.....	c24 W76-14204	US-PATENT-3,947,933	.....	c20 W76-21276
US-PATENT-3,911,260	.....	c35 W76-14431	US-PATENT-3,948,102	.....	c33 W76-21390
US-PATENT-3,911,330	.....	c33 W76-14373	US-PATENT-3,948,470	.....	c20 W76-21275
US-PATENT-3,912,540	.....	c44 W76-14600	US-PATENT-3,949,206	.....	c32 W76-21366
US-PATENT-3,912,541	.....	c44 W76-14601	US-PATENT-3,949,400	.....	c17 W76-21250
US-PATENT-3,912,999	.....	c44 W76-18643	US-PATENT-3,949,404	.....	c32 W76-21365
US-PATENT-3,914,950	.....	c31 W76-14284	US-PATENT-3,950,729	.....	c60 W76-21914
US-PATENT-3,914,969	.....	c37 W76-14461	US-PATENT-3,951,129	.....	c44 W76-22657
US-PATENT-3,914,991	.....	c35 W76-14430	US-PATENT-3,952,083	.....	c27 W76-22376
US-PATENT-3,914,997	.....	c35 W76-14429	US-PATENT-3,952,590	.....	c09 W76-23273
US-PATENT-3,915,012	.....	c54 W76-14804	US-PATENT-3,952,971	.....	c02 W76-22154
US-PATENT-3,915,148	.....	c44 W76-14602	US-PATENT-3,952,976	.....	c37 W76-22540
US-PATENT-3,915,416	.....	c15 W76-14158	US-PATENT-3,952,980	.....	c19 W76-22284
US-PATENT-3,915,482	.....	c37 W76-14460	US-PATENT-3,952,998	.....	c20 W76-22296
US-PATENT-3,915,572	.....	c36 W76-14447	US-PATENT-3,953,038	.....	c37 W76-22541
US-PATENT-3,916,060	.....	c27 W76-15310	US-PATENT-3,953,343	.....	c24 W76-22309
US-PATENT-3,916,084	.....	c33 W76-14371	US-PATENT-3,953,343	.....	c24 W79-17916
US-PATENT-3,916,187	.....	c35 W76-15431	US-PATENT-3,953,646	.....	c27 W76-22377
US-PATENT-3,916,316	.....	c32 W76-14321	US-PATENT-3,953,674	.....	c17 W76-22245
US-PATENT-3,916,380	.....	c60 W76-14818	US-PATENT-3,953,734	.....	c25 W76-22323
US-PATENT-3,916,761	.....	c75 W76-14931	US-PATENT-3,953,792	.....	c35 W76-22509
US-PATENT-3,919,014	.....	c24 W76-14203	US-PATENT-3,955,034	.....	c27 W76-23426
US-PATENT-3,919,710	.....	c33 W76-14372	US-PATENT-3,955,941	.....	c44 W76-29700

NUMBER INDEX

US-PATENT-3,956,032	c76 N76-25049	US-PATENT-3,990,049	c60 N77-19760
US-PATENT-3,956,050	c37 N76-24575	US-PATENT-3,990,860	c27 N77-13217
US-PATENT-3,956,233	c27 N76-24405	US-PATENT-3,990,987	c37 N77-13418
US-PATENT-3,956,233	c27 N78-17213	US-PATENT-3,994,128	c07 N77-14025
US-PATENT-3,956,233	c27 N78-32262	US-PATENT-3,995,324	c52 N77-14735
US-PATENT-3,956,833	c09 N76-24280	US-PATENT-3,995,476	c35 N77-14407
US-PATENT-3,956,919	c35 N76-24523	US-PATENT-3,995,522	c37 N77-14478
US-PATENT-3,956,932	c35 N76-24524	US-PATENT-3,995,621	c52 N77-14736
US-PATENT-3,957,030	c44 N76-23675	US-PATENT-3,995,644	c52 N77-14738
US-PATENT-3,957,037	c35 N76-24525	US-PATENT-3,995,789	c37 N77-14479
US-PATENT-3,957,044	c54 N76-24900	US-PATENT-3,995,877	c37 N77-14477
US-PATENT-3,957,104	c37 N76-23570	US-PATENT-3,995,960	c35 N77-14411
US-PATENT-3,957,675	c24 N76-24363	US-PATENT-3,996,064	c44 N77-14581
US-PATENT-3,958,188	c36 N76-24553	US-PATENT-3,996,067	c44 N77-14580
US-PATENT-3,958,238	c60 N76-23850	US-PATENT-3,996,070	c35 N77-14409
US-PATENT-3,958,553	c44 N76-24696	US-PATENT-3,996,455	c60 N77-14751
US-PATENT-3,961,997	c44 N76-28635	US-PATENT-3,996,462	c33 N77-14335
US-PATENT-3,961,997	c44 N78-24609	US-PATENT-3,996,464	c35 N77-14406
US-PATENT-3,964,306	c34 N76-27517	US-PATENT-3,996,468	c35 N77-14408
US-PATENT-3,964,319	c07 N76-27232	US-PATENT-3,996,471	c52 N77-14737
US-PATENT-3,964,813	c37 N76-27567	US-PATENT-3,996,506	c33 N77-14333
US-PATENT-3,964,902	c34 N76-27515	US-PATENT-3,996,532	c32 N77-14292
US-PATENT-3,964,928	c44 N76-27664	US-PATENT-3,997,848	c33 N77-14334
US-PATENT-3,965,096	c27 N76-32315	US-PATENT-3,999,886	c05 N77-17029
US-PATENT-3,965,354	c33 N76-27473		
US-PATENT-3,965,475	c33 N76-27472	US-PATENT-4,049,930	c33 N78-10375
US-PATENT-3,966,499	c44 N76-31666	US-PATENT-4,000,682	c20 N77-17143
US-PATENT-3,966,547	c25 N76-27383	US-PATENT-4,000,929	c37 N77-17464
US-PATENT-3,967,091	c37 N76-27568	US-PATENT-4,001,552	c38 N77-17495
US-PATENT-3,971,230	c37 N76-29590	US-PATENT-4,001,602	c33 N77-17354
US-PATENT-3,971,256	c91 N76-30131	US-PATENT-4,003,004	c33 N77-17351
US-PATENT-3,971,362	c52 N76-29894	US-PATENT-4,003,084	c35 N77-17426
US-PATENT-3,971,363	c52 N76-29895	US-PATENT-4,003,257	c23 N77-17161
US-PATENT-3,971,364	c52 N76-29896	US-PATENT-4,004,292	c74 N77-18893
US-PATENT-3,971,535	c05 N76-29217	US-PATENT-4,005,574	c07 N77-17059
US-PATENT-3,971,602	c37 N76-29588	US-PATENT-4,006,631	c04 N77-19056
US-PATENT-3,971,697	c25 N76-29379	US-PATENT-4,006,999	c24 N77-19170
US-PATENT-3,971,703	c51 N76-29891	US-PATENT-4,007,430	c36 N77-19416
US-PATENT-3,971,847	c44 N76-29704	US-PATENT-4,007,434	c32 N77-18307
US-PATENT-3,971,915	c35 N76-29552	US-PATENT-4,007,601	c34 N77-19353
US-PATENT-3,971,930	c74 N76-30053	US-PATENT-4,007,623	c35 N77-18417
US-PATENT-3,971,940	c35 N76-29551	US-PATENT-4,007,891	c07 N77-18154
US-PATENT-3,972,008	c36 N76-29575	US-PATENT-4,008,348	c34 N77-18382
US-PATENT-3,972,038	c17 N76-29347	US-PATENT-4,008,407	c73 N77-18891
US-PATENT-3,972,651	c44 N76-29701	US-PATENT-4,010,455	c37 N77-19458
US-PATENT-3,972,727	c44 N76-29699	US-PATENT-4,010,455	c37 N78-31426
US-PATENT-3,976,997	c62 N76-31946	US-PATENT-4,011,719	c20 N77-20162
US-PATENT-3,977,147	c39 N76-31562	US-PATENT-4,011,756	c35 N77-20400
US-PATENT-3,977,197	c44 N76-31667	US-PATENT-4,011,854	c35 N77-20401
US-PATENT-3,977,231	c35 N76-31489	US-PATENT-4,012,018	c35 N77-20399
US-PATENT-3,977,771	c74 N76-31998	US-PATENT-4,012,123	c74 N77-20882
US-PATENT-3,977,787	c35 N76-31490	US-PATENT-4,012,237	c26 N77-20201
US-PATENT-3,977,831	c45 N76-31714	US-PATENT-4,012,696	c32 N77-20289
US-PATENT-3,978,187	c37 N76-31524	US-PATENT-4,014,745	c51 N77-22794
US-PATENT-3,978,287	c32 N76-31372	US-PATENT-4,017,959	c37 N77-23482
US-PATENT-3,978,350	c33 N76-31410	US-PATENT-4,018,080	c35 N77-22450
US-PATENT-3,978,360	c33 N76-31409	US-PATENT-4,018,085	c35 N77-22449
US-PATENT-3,978,364	c31 N76-31365	US-PATENT-4,018,092	c37 N77-22482
US-PATENT-3,978,410	c03 N76-32140	US-PATENT-4,018,409	c37 N77-23483
US-PATENT-3,978,417	c36 N76-31512	US-PATENT-4,018,423	c54 N77-21844
US-PATENT-3,978,490	c33 N76-32457	US-PATENT-4,018,532	c74 N77-22951
US-PATENT-3,982,910	c44 N77-10636	US-PATENT-4,018,533	c74 N77-22950
US-PATENT-3,983,695	c20 N77-10148	US-PATENT-4,018,649	c51 N77-25769
US-PATENT-3,983,714	c31 N77-10229	US-PATENT-4,018,971	c44 N77-22606
US-PATENT-3,983,749	c09 N77-10071	US-PATENT-4,019,179	c32 N77-21267
US-PATENT-3,983,753	c52 N77-10780	US-PATENT-4,019,868	c44 N77-22607
US-PATENT-3,983,780	c28 N77-10213	US-PATENT-4,020,632	c07 N77-23106
US-PATENT-3,983,933	c34 N77-10463	US-PATENT-4,023,266	c33 N77-26385
US-PATENT-3,984,070	c02 N77-10001	US-PATENT-4,025,327	c35 N77-24455
US-PATENT-3,984,072	c15 N77-10113	US-PATENT-4,025,783	c74 N77-26942
US-PATENT-3,984,256	c44 N77-10635	US-PATENT-4,025,866	c33 N77-24375
US-PATENT-3,984,634	c32 N77-10392	US-PATENT-4,025,875	c36 N77-25499
US-PATENT-3,984,671	c43 N77-10584	US-PATENT-4,025,876	c71 N77-26919
US-PATENT-3,984,681	c35 N77-10492	US-PATENT-4,025,891	c35 N77-24454
US-PATENT-3,984,685	c47 N77-10753	US-PATENT-4,025,950	c32 N77-24328
US-PATENT-3,984,686	c35 N77-10493	US-PATENT-4,025,964	c52 N77-25772
US-PATENT-3,984,730	c33 N77-10429	US-PATENT-4,026,527	c34 N77-24423
US-PATENT-3,984,799	c33 N77-10428	US-PATENT-4,026,655	c36 N77-25501
US-PATENT-3,985,454	c74 N77-10899	US-PATENT-4,027,212	c33 N77-26386
US-PATENT-3,987,630	c37 N77-12402	US-PATENT-4,027,265	c32 N77-24331
US-PATENT-3,988,561	c37 N77-11397	US-PATENT-4,027,273	c36 N77-25502
US-PATENT-3,988,677	c32 N77-12240	US-PATENT-4,027,494	c35 N78-12390
US-PATENT-3,988,716	c60 N77-12721	US-PATENT-4,027,524	c09 N77-27131
US-PATENT-3,988,729	c32 N77-12239	US-PATENT-4,028,939	c34 N77-27345
US-PATENT-3,988,933	c35 N77-19385	US-PATENT-4,029,470	c51 N77-27677
US-PATENT-3,989,136	c37 N77-19457	US-PATENT-4,029,500	c24 N77-27187
US-PATENT-3,989,206	c09 N77-19076	US-PATENT-4,029,838	c24 N77-27188
US-PATENT-3,989,541	c44 N77-19571	US-PATENT-4,030,047	c35 N77-27366
US-PATENT-3,989,602	c24 N77-19171	US-PATENT-4,030,348	c39 N78-10493

NUMBER INDEX

US-PATENT-4,031,389	c36 N77-26477	US-PATENT-4,061,577	c74 N78-14889
US-PATENT-4,032,089	c24 N77-28225	US-PATENT-4,061,579	c24 N78-14096
US-PATENT-4,033,119	c07 N77-28118	US-PATENT-4,061,812	c24 N78-15180
US-PATENT-4,033,182	c39 N77-28511	US-PATENT-4,061,834	c27 N78-14164
US-PATENT-4,033,316	c33 N77-28385	US-PATENT-4,061,856	c27 N78-15276
US-PATENT-4,033,334	c52 N77-28717	US-PATENT-4,061,955	c44 N78-14625
US-PATENT-4,033,349	c52 N77-28716	US-PATENT-4,061,974	c32 N78-15323
US-PATENT-4,033,479	c37 N77-28847	US-PATENT-4,062,227	c39 N78-15512
US-PATENT-4,033,503	c26 N77-29260	US-PATENT-4,062,245	c37 N78-16369
US-PATENT-4,033,504	c26 N77-28265	US-PATENT-4,062,347	c44 N78-15560
US-PATENT-4,033,705	c07 N77-27116	US-PATENT-4,062,650	c25 N78-15210
US-PATENT-4,033,882	c32 N77-28346	US-PATENT-4,062,996	c74 N78-15879
US-PATENT-4,035,037	c37 N77-28486	US-PATENT-4,063,088	c74 N78-15880
US-PATENT-4,035,062	c74 N77-28932	US-PATENT-4,063,092	c35 N78-15461
US-PATENT-4,035,065	c74 N77-28933	US-PATENT-4,063,282	c39 N78-16387
US-PATENT-4,038,705	c54 N77-30749	US-PATENT-4,063,814	c74 N78-17866
US-PATENT-4,039-489	c27 N77-31308	US-PATENT-4,063,981	c24 N78-17149
US-PATENT-4,039-946	c35 N77-30436	US-PATENT-4,064,566	c27 N78-17215
US-PATENT-4,039,000	c34 N77-30399	US-PATENT-4,064,642	c54 N78-17675
US-PATENT-4,039,347	c27 N77-30237	US-PATENT-4,064,692	c37 N78-17384
US-PATENT-4,039,754	c32 N77-30309	US-PATENT-4,065,053	c44 N78-17460
US-PATENT-4,039,925	c33 N77-30365	US-PATENT-4,065,053	c44 N79-14529
US-PATENT-4,040,041	c33 N77-31404	US-PATENT-4,065,202	c35 N78-17357
US-PATENT-4,040,750	c35 N77-31465	US-PATENT-4,065,340	c24 N78-17150
US-PATENT-4,040,867	c44 N77-31601	US-PATENT-4,065,345	c27 N78-17205
US-PATENT-4,041,233	c27 N77-30236	US-PATENT-4,066,039	c37 N78-17383
US-PATENT-4,041,391	c32 N77-30308	US-PATENT-4,067,015	c17 N78-17140
US-PATENT-4,041,697	c37 N78-10467	US-PATENT-4,067,043	c74 N78-17865
US-PATENT-4,041,910	c37 N77-31497	US-PATENT-4,067,653	c74 N78-17867
US-PATENT-4,042,926	c32 N77-31350	US-PATENT-4,067,742	c27 N78-17206
US-PATENT-4,043,674	c36 N77-32478	US-PATENT-4,068,469	c07 N78-17055
US-PATENT-4,044,753	c44 N77-32582	US-PATENT-4,068,470	c07 N78-17056
US-PATENT-4,044,821	c44 N77-32581	US-PATENT-4,068,495	c31 N78-17237
US-PATENT-4,045,063	c37 N77-32499	US-PATENT-4,068,495	c34 N79-20336
US-PATENT-4,045,149	c07 N77-32148	US-PATENT-4,068,763	c54 N78-17676
US-PATENT-4,045,247	c35 N77-32454	US-PATENT-4,069,028	c34 N78-17335
US-PATENT-4,045,255	c26 N77-32279	US-PATENT-4,069,212	c27 N78-17213
US-PATENT-4,045,315	c44 N77-32580	US-PATENT-4,069,478	c60 N78-17691
US-PATENT-4,045,359	c25 N77-32255	US-PATENT-4,069,661	c07 N78-18067
US-PATENT-4,045,728	c35 N77-32455	US-PATENT-4,070,574	c74 N78-18905
US-PATENT-4,045,792	c60 N77-32731	US-PATENT-4,072,532	c27 N78-19302
US-PATENT-4,045,795	c32 N77-32342	US-PATENT-4,072,532	c27 N79-14213
US-PATENT-4,046,012	c35 N77-32456	US-PATENT-4,075,057	c73 N78-19920
US-PATENT-4,046,190	c34 N77-32413	US-PATENT-4,077,231	c31 N78-25256
US-PATENT-4,046,262	c54 N77-32721	US-PATENT-4,077,678	c44 N78-24608
US-PATENT-4,046,434	c37 N77-32500	US-PATENT-4,077,788	c28 N78-24365
US-PATENT-4,046,435	c37 N77-32501	US-PATENT-4,077,813	c26 N78-24333
US-PATENT-4,046,462	c44 N77-32583	US-PATENT-4,077,818	c44 N78-24609
US-PATENT-4,046,529	c54 N77-32722	US-PATENT-4,077,921	c24 N78-24290
US-PATENT-4,046,560	c26 N77-32280	US-PATENT-4,078,110	c34 N78-25350
US-PATENT-4,046,617	c76 N77-32919	US-PATENT-4,078,175	c76 N78-24950
US-PATENT-4,046,619	c27 N77-32308	US-PATENT-4,078,290	c37 N78-24544
US-PATENT-4,047,840	c37 N78-10468	US-PATENT-4,078,378	c37 N78-24545
US-PATENT-4,051,558	c52 N78-10686	US-PATENT-4,079,268	c32 N78-24391
US-PATENT-4,051,834	c44 N78-10554	US-PATENT-4,080,901	c20 N78-24275
US-PATENT-4,051,877	c35 N78-10428	US-PATENT-4,081,250	c44 N78-31527
US-PATENT-4,052,144	c25 N78-10224	US-PATENT-4,082,001	c35 N78-24515
US-PATENT-4,052,181	c71 N78-10837	US-PATENT-4,082,569	c44 N78-25527
US-PATENT-4,052,302	c25 N78-10225	US-PATENT-4,082,569	c44 N79-11472
US-PATENT-4,052,523	c24 N78-10214	US-PATENT-4,083,097	c44 N78-25528
US-PATENT-4,052,614	c35 N78-10429	US-PATENT-4,083,181	c07 N78-25089
US-PATENT-4,052,648	c33 N78-10376	US-PATENT-4,083,380	c37 N78-25426
US-PATENT-4,052,659	c33 N78-10377	US-PATENT-4,083,520	c15 N78-25119
US-PATENT-4,052,666	c43 N78-10529	US-PATENT-4,083,765	c35 N78-25391
US-PATENT-4,052,705	c60 N78-10709	US-PATENT-4,084,124	c44 N78-25531
US-PATENT-4,053,229	c74 N78-13874	US-PATENT-4,084,132	c33 N78-25319
US-PATENT-4,053,231	c35 N78-18391	US-PATENT-4,084,612	c34 N78-25351
US-PATENT-4,053,918	c44 N78-13526	US-PATENT-4,084,825	c07 N78-25090
US-PATENT-4,055,004	c09 N78-18083	US-PATENT-4,084,985	c44 N78-25529
US-PATENT-4,055,041	c07 N78-18066	US-PATENT-4,085,004	c73 N78-28913
US-PATENT-4,055,072	c35 N78-19465	US-PATENT-4,085,241	c44 N78-25530
US-PATENT-4,055,089	c35 N78-18390	US-PATENT-4,085,332	c25 N78-25148
US-PATENT-4,055,147	c35 N78-19466	US-PATENT-4,087,902	c33 N78-27326
US-PATENT-4,055,416	c26 N78-18182	US-PATENT-4,087,962	c34 N78-27357
US-PATENT-4,055,447	c26 N78-18183	US-PATENT-4,087,975	c44 N78-32542
US-PATENT-4,055,686	c37 N78-13436	US-PATENT-4,088,018	c37 N78-27424
US-PATENT-4,055,705	c34 N78-18355	US-PATENT-4,088,094	c51 N78-27733
US-PATENT-4,055,707	c44 N78-19599	US-PATENT-4,088,270	c07 N78-27121
US-PATENT-4,055,764	c35 N78-13400	US-PATENT-4,088,291	c37 N78-27425
US-PATENT-4,055,777	c33 N78-18308	US-PATENT-4,088,312	c37 N78-27423
US-PATENT-4,055,810	c36 N78-18410	US-PATENT-4,088,408	c74 N78-27904
US-PATENT-4,055,847	c33 N78-13320	US-PATENT-4,088,532	c25 N78-27226
US-PATENT-4,061,029	c35 N78-14364	US-PATENT-4,088,806	c24 N78-27180
US-PATENT-4,061,041	c71 N78-14867	US-PATENT-4,088,926	c75 N78-27191
US-PATENT-4,061,146	c52 N78-14773	US-PATENT-4,088,951	c35 N78-28411
US-PATENT-4,061,190	c43 N78-14452	US-PATENT-4,088,954	c35 N78-32397
US-PATENT-4,061,427	c36 N78-14380	US-PATENT-4,088,965	c36 N78-27402
US-PATENT-4,061,561	c25 N78-14104	US-PATENT-4,088,999	c44 N78-28594
US-PATENT-4,061,570	c54 N78-14784	US-PATENT-4,089,209	c35 N78-27384

NUMBER INDEX

US-PATENT-4, 089,705	c44 N78-27515	US-PATENT-4, 119,964	c32 N79-11265
US-PATENT-4, 091,166	c27 N78-31233	US-PATENT-4, 119,972	c32 N79-11264
US-PATENT-4, 091,329	c33 N78-32339	US-PATENT-4, 119,996	c33 N79-12321
US-PATENT-4, 091,464	c54 N78-31735	US-PATENT-4, 121,965	c76 N79-11920
US-PATENT-4, 091,465	c54 N78-31736	US-PATENT-4, 121,995	c25 N79-11152
US-PATENT-4, 091,613	c44 N78-32539	US-PATENT-4, 122,214	c44 N79-11472
US-PATENT-4, 091,665	c09 N78-31129	US-PATENT-4, 122,334	c74 N79-12890
US-PATENT-4, 091,798	c44 N78-31526	US-PATENT-4, 122,383	c44 N79-12541
US-PATENT-4, 091,798	c44 N79-11471	US-PATENT-4, 122,450	c32 N79-13214
US-PATENT-4, 091,800	c44 N78-31525	US-PATENT-4, 122,518	c52 N79-12694
US-PATENT-4, 092,188	c28 N78-31255	US-PATENT-4, 122,712	c34 N79-12359
US-PATENT-4, 092,274	c27 N78-31232	US-PATENT-4, 122,725	c38 N79-14398
US-PATENT-4, 092,466	c27 N78-32256	US-PATENT-4, 122,816	c37 N79-11405
US-PATENT-4, 092,606	c33 N78-32338	US-PATENT-4, 122,833	c44 N79-11471
US-PATENT-4, 092,617	c33 N78-32340	US-PATENT-4, 122,991	c18 N79-11108
US-PATENT-4, 092,633	c54 N78-32720	US-PATENT-4, 123,355	c45 N79-12584
US-PATENT-4, 092,648	c32 N78-31321	US-PATENT-4, 124,160	c05 N79-12061
US-PATENT-4, 092,712	c33 N78-32341	US-PATENT-4, 124,330	c07 N79-14095
US-PATENT-4, 092,874	c37 N78-31426	US-PATENT-4, 124,732	c27 N79-12221
US-PATENT-4, 093,156	c05 N78-32086	US-PATENT-4, 128,814	c36 N79-14362
US-PATENT-4, 093,354	c73 N78-32848	US-PATENT-4, 129,357	c74 N79-14691
US-PATENT-4, 093,382	c38 N78-32447	US-PATENT-4, 130,032	c37 N79-14383
US-PATENT-4, 093,771	c27 N78-32260	US-PATENT-4, 130,112	c52 N79-14751
US-PATENT-4, 093,917	c35 N78-32396	US-PATENT-4, 130,471	c25 N79-14169
US-PATENT-4, 094,073	c35 N78-32395	US-PATENT-4, 130,490	c33 N79-15245
US-PATENT-4, 094,758	c26 N78-32229	US-PATENT-4, 130,795	c35 N79-14349
US-PATENT-4, 094,862	c27 N78-32261	US-PATENT-4, 131,336	c44 N79-14529
US-PATENT-4, 094,943	c27 N78-32262	US-PATENT-4, 131,459	c27 N79-14213
US-PATENT-4, 095,593	c54 N78-32721	US-PATENT-4, 131,486	c44 N79-14528
US-PATENT-4, 096,315	c74 N78-32854	US-PATENT-4, 132,068	c07 N79-14097
US-PATENT-4, 097,194	c07 N78-33101	US-PATENT-4, 132,069	c07 N79-14096
US-PATENT-4, 098,142	c37 N79-10422	US-PATENT-4, 132,130	c44 N79-14527
US-PATENT-4, 099,452	c45 N79-10570	US-PATENT-4, 132,375	c08 N79-14108
US-PATENT-4, 099,799	c37 N79-10418	US-PATENT-4, 132,594	c52 N79-14749
US-PATENT-4, 100,331	c44 N79-10513	US-PATENT-4, 132,599	c52 N79-14750
US-PATENT-4, 100,487	c33 N79-10337	US-PATENT-4, 132,829	c27 N79-14214
US-PATENT-4, 100,531	c32 N79-10263	US-PATENT-4, 132,940	c35 N79-14348
US-PATENT-4, 101,195	c89 N79-10969	US-PATENT-4, 132,989	c32 N79-14268
US-PATENT-4, 101,644	c25 N79-10162	US-PATENT-4, 133,697	c44 N79-17314
US-PATENT-4, 101,780	c35 N79-10389	US-PATENT-4, 133,941	c44 N79-17313
US-PATENT-4, 101,891	c35 N79-10391	US-PATENT-4, 134,447	c31 N79-17029
US-PATENT-4, 101,961	c52 N79-10724	US-PATENT-4, 134,683	c43 N79-17288
US-PATENT-4, 102,580	c74 N79-11865	US-PATENT-4, 134,744	c35 N79-17192
US-PATENT-4, 103,550	c31 N79-11246	US-PATENT-4, 134,786	c85 N79-17747
US-PATENT-4, 103,619	c28 N79-11231	US-PATENT-4, 135,019	c24 N79-16915
US-PATENT-4, 103,712	c37 N79-11402	US-PATENT-4, 135,127	c33 N79-17133
US-PATENT-4, 104,018	c25 N79-11151	US-PATENT-4, 135,290	c44 N79-18444
US-PATENT-4, 104,084	c44 N79-11467	US-PATENT-4, 135,367	c44 N79-18443
US-PATENT-4, 104,084	c44 N79-18444	US-PATENT-4, 135,817	c35 N79-18296
US-PATENT-4, 104,091	c44 N79-11468	US-PATENT-4, 135,851	c37 N79-18318
US-PATENT-4, 104,134	c44 N79-11469	US-PATENT-4, 136,211	c24 N79-17916
US-PATENT-4, 104,873	c37 N79-11403	US-PATENT-4, 137,010	c05 N79-17847
US-PATENT-4, 105,261	c37 N79-11404	US-PATENT-4, 137,365	c27 N79-18052
US-PATENT-4, 105,517	c44 N79-11470	US-PATENT-4, 139,291	c74 N79-20856
US-PATENT-4, 105,966	c33 N79-11315	US-PATENT-4, 139,806	c71 N79-20827
US-PATENT-4, 106,218	c74 N79-13855	US-PATENT-4, 139,839	c60 N79-20751
US-PATENT-4, 106,587	c71 N79-14871	US-PATENT-4, 139,862	c32 N79-20297
US-PATENT-4, 106,687	c37 N79-13364	US-PATENT-4, 140,972	c32 N79-20296
US-PATENT-4, 107,363	c33 N79-12331	US-PATENT-4, 141,219	c34 N79-20335
US-PATENT-4, 107,627	c72 N79-13826	US-PATENT-4, 141,224	c34 N79-20336
US-PATENT-4, 107,919	c34 N79-13288	US-PATENT-4, 141,259	c37 N79-20377
US-PATENT-4, 108,241	c34 N79-13289	US-PATENT-4, 142,101	c74 N79-20857
US-PATENT-4, 109,644	c52 N79-18580	US-PATENT-4, 142,119	c33 N79-20314
US-PATENT-4, 110,683	c33 N79-18193	US-PATENT-4, 143,314	c20 N79-20179
US-PATENT-4, 110,703	c36 N79-18307		
US-PATENT-4, 111,041	c35 N79-14345		
US-PATENT-4, 111,058	c35 N79-14347		
US-PATENT-4, 111,068	c37 N79-14382		
US-PATENT-4, 111,184	c44 N79-14526		
US-PATENT-4, 111,718	c35 N79-14346		
US-PATENT-4, 111,729	c28 N79-14228		
US-PATENT-4, 111,775	c76 N79-14906		
US-PATENT-4, 111,851	c24 N79-14156		
US-PATENT-4, 112,357	c33 N79-14305		
US-PATENT-4, 112,497	c32 N79-14267		
US-PATENT-4, 112,875	c44 N78-33526		
US-PATENT-4, 116,131	c20 N78-32179		
US-PATENT-4, 117,669	c07 N79-10057		
US-PATENT-4, 117,731	c35 N79-10390		
US-PATENT-4, 117,749	c37 N79-10419		
US-PATENT-4, 117,881	c51 N79-10694		
US-PATENT-4, 118,014	c37 N79-10420		
US-PATENT-4, 118,315	c51 N79-10693		
US-PATENT-4, 118,620	c37 N79-10421		
US-PATENT-4, 118,665	c33 N79-10338		
US-PATENT-4, 118,666	c32 N79-10262		
US-PATENT-4, 118,671	c33 N79-10339		
US-PATENT-4, 118,701	c32 N79-10264		
US-PATENT-4, 119,926	c33 N79-11313		

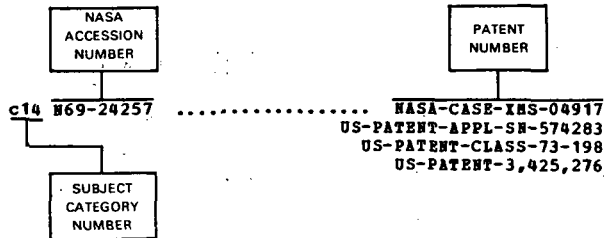
Accession Number Index

NASA PATENT ABSTRACTS BIBLIOGRAPHY

JULY 1979

Section 2

Typical Accession Number Index Listing



Listings in the index are arranged numerically by NASA accession number. The category number indicates the category in Section 1 (Abstracts) in which the citation is located. The NASA accession number denotes the number by which the citation is identified within the subject category. The "patent" numbers are the identification numbers that have been assigned to the item by the issuing body or other agency.

c09 N69-21313 NASA-CASE-XAR-03786
 US-PATENT-APPL-SN-476763
 US-PATENT-CLASS-310-4
 US-PATENT-3,423,608
 c03 N69-21330 NASA-CASE-XGS-03429
 US-PATENT-APPL-SN-591930
 US-PATENT-CLASS-321-2
 US-PATENT-3,427,525
 c03 N69-21337 NASA-CASE-XNP-04264
 US-PATENT-APPL-SN-447933
 US-PATENT-CLASS-136-146
 US-PATENT-3,421,948
 c15 N69-21362 NASA-CASE-XLE-05130
 US-PATENT-APPL-SN-545224
 US-PATENT-CLASS-277-25
 US-PATENT-3,421,768
 c14 N69-21363 NASA-CASE-XGS-03865
 US-PATENT-APPL-SN-478491
 US-PATENT-CLASS-33-174
 US-PATENT-3,419,964
 c05 N69-21380 NASA-CASE-XLA-08491
 US-PATENT-APPL-SN-619520
 US-PATENT-CLASS-244-4
 US-PATENT-3,420,471
 c15 N69-21460 NASA-CASE-XKS-04614
 US-PATENT-APPL-SN-574280
 US-PATENT-CLASS-117-201
 US-PATENT-3,420,704
 c15 N69-21465 NASA-CASE-XLA-08645
 US-PATENT-APPL-SN-635970
 US-PATENT-CLASS-62-93
 US-PATENT-3,420,069
 c12 N69-21466 NASA-CASE-XLE-03512
 US-PATENT-APPL-SN-462762
 US-PATENT-CLASS-137-81.5
 US-PATENT-3,420,253
 c09 N69-21467 NASA-CASE-XMS-06949
 US-PATENT-APPL-SN-635328
 US-PATENT-CLASS-346-44
 US-PATENT-3,422,440
 c09 N69-21468 NASA-CASE-XNP-05612
 US-PATENT-APPL-SN-562934
 US-PATENT-CLASS-307-106
 US-PATENT-3,422,278
 c03 N69-21469 NASA-CASE-XMS-04843
 US-PATENT-APPL-SN-545229
 US-PATENT-CLASS-137-624.14
 US-PATENT-3,421,549
 c09 N69-21470 NASA-CASE-XLA-01288
 US-PATENT-APPL-SN-460876
 US-PATENT-CLASS-339-150
 US-PATENT-3,421,134
 c15 N69-21471 NASA-CASE-XMS-03537
 US-PATENT-APPL-SN-468655
 US-PATENT-CLASS-219-121
 US-PATENT-3,420,978
 c15 N69-21472 NASA-CASE-XGS-02437

c05 N69-21473 NASA-CASE-XAR-01547
 US-PATENT-APPL-SN-391343
 US-PATENT-CLASS-128-2.08
 US-PATENT-3,420,225
 c03 N69-21539 NASA-CASE-XGS-01395
 US-PATENT-APPL-SN-545535
 US-PATENT-CLASS-174-72
 US-PATENT-3,422,213
 c11 N69-21540 NASA-CASE-XLA-02704
 US-PATENT-APPL-SN-469011
 US-PATENT-CLASS-73-67.2
 US-PATENT-3,421,363
 c14 N69-21541 NASA-CASE-XNP-09752
 US-PATENT-APPL-SN-640460
 US-PATENT-CLASS-317-246
 US-PATENT-3,422,324
 c09 N69-21542 NASA-CASE-XLE-03778
 US-PATENT-APPL-SN-628247
 US-PATENT-CLASS-174-18
 US-PATENT-3,420,945
 c09 N69-21543 NASA-CASE-XGS-04994
 US-PATENT-APPL-SN-619907
 US-PATENT-CLASS-331-4
 US-PATENT-3,421,105
 c15 N69-21922 NASA-CASE-XHQ-03903
 US-PATENT-APPL-SN-560967
 US-PATENT-CLASS-23-208
 US-PATENT-3,423,179
 c14 N69-21923 NASA-CASE-XNP-07478
 US-PATENT-APPL-SN-605097
 US-PATENT-CLASS-175-323
 US-PATENT-3,421,591
 c15 N69-21924 NASA-CASE-XMS-05894-1
 US-PATENT-APPL-SN-685766
 US-PATENT-CLASS-137-491
 US-PATENT-3,421,541
 c05 N69-21925 NASA-CASE-XMS-02872
 US-PATENT-APPL-SN-422864
 US-PATENT-CLASS-128-2.06
 US-PATENT-3,420,223
 c09 N69-21926 NASA-CASE-XNP-06032
 US-PATENT-APPL-SN-590146
 US-PATENT-CLASS-324-158
 US-PATENT-3,422,354
 c09 N69-21927 NASA-CASE-XMS-07846-1
 US-PATENT-APPL-SN-694247
 US-PATENT-CLASS-339-91
 US-PATENT-3,422,390
 c08 N69-21928 NASA-CASE-XNP-09785
 US-PATENT-APPL-SN-599975
 US-PATENT-CLASS-340-172.5
 US-PATENT-3,422,403
 c25 N69-21929 NASA-CASE-XNP-07481
 US-PATENT-APPL-SN-563650
 US-PATENT-CLASS-310-11
 US-PATENT-3,422,291
 c15 N69-23185 NASA-CASE-XNP-05975
 US-PATENT-APPL-SN-570097
 US-PATENT-CLASS-239-416
 US-PATENT-3,421,700
 c15 N69-23190 NASA-CASE-NPO-10309
 US-PATENT-APPL-SN-574282
 US-PATENT-APPL-SN-700985
 US-PATENT-CLASS-62-6
 US-PATENT-3,421,331
 c14 N69-23191 NASA-CASE-XLE-10529
 US-PATENT-APPL-SN-603396
 US-PATENT-CLASS-317-234
 US-PATENT-3,421,056
 c05 N69-23192 NASA-CASE-XMS-06761
 US-PATENT-APPL-SN-575475
 US-PATENT-CLASS-128-283
 US-PATENT-3,421,506
 c14 N69-24257 NASA-CASE-XMS-04917
 US-PATENT-APPL-SN-574283
 US-PATENT-CLASS-73-198
 US-PATENT-3,425,276

ACCESSION NUMBER INDEX

c15 N69-24266	NASA-CASE-XMS-03700 US-PATENT-APPL-SN-617783 US-PATENT-CLASS-314-129 US-PATENT-3,428,847	US-PATENT-APPL-SN-685764 US-PATENT-CLASS-136-213 US-PATENT-3,431,149
c03 N69-24267	NASA-CASE-XGS-04531 US-PATENT-APPL-SN-590141 US-PATENT-CLASS-136-89 US-PATENT-3,437,527	c07 N69-27460 NASA-CASE-XGS-05582 US-PATENT-APPL-SN-646424 US-PATENT-CLASS-343-854 US-PATENT-3,438,044
c09 N69-24317	NASA-CASE-XGS-04999 US-PATENT-APPL-SN-519395 US-PATENT-CLASS-307-268 US-PATENT-3,426,219	c14 N69-27461 NASA-CASE-XLA-03724 US-PATENT-APPL-SN-568071 US-PATENT-CLASS-350-6 US-PATENT-3,437,394
c09 N69-24318	NASA-CASE-XGS-05003 US-PATENT-APPL-SN-576797 US-PATENT-CLASS-317-235 US-PATENT-3,430,115	c07 N69-27462 NASA-CASE-XMS-05303 US-PATENT-APPL-SN-617022 US-PATENT-CLASS-333-97 US-PATENT-3,428,923
c15 N69-24319	NASA-CASE-XNP-09227 US-PATENT-APPL-SN-632164 US-PATENT-CLASS-313-44 US-PATENT-3,426,230	c09 N69-27463 NASA-CASE-XGS-03095 US-PATENT-APPL-SN-552344 US-PATENT-CLASS-307-222 US-PATENT-3,437,832
c15 N69-24320	NASA-CASE-XGS-03864 US-PATENT-APPL-SN-577114 US-PATENT-CLASS-136-133 US-PATENT-3,427,205	c11 N69-27466 NASA-CASE-XNP-04969 US-PATENT-APPL-SN-593604 US-PATENT-CLASS-248-317 US-PATENT-3,430,909
c11 N69-24321	NASA-CASE-XLA-03271 US-PATENT-APPL-SN-482313 US-PATENT-CLASS-350-310 US-PATENT-3,427,097	c15 N69-27483 NASA-CASE-XLA-03105 US-PATENT-APPL-SN-529594 US-PATENT-CLASS-263-48 US-PATENT-3,430,937
c15 N69-24322	NASA-CASE-XMS-01108 US-PATENT-APPL-SN-432032 US-PATENT-CLASS-156-242 US-PATENT-3,425,885	c14 N69-27484 NASA-CASE-XLA-04556 US-PATENT-APPL-SN-607608 US-PATENT-CLASS-250-83 US-PATENT-3,433,953
c07 N69-24323	NASA-CASE-XGS-02816 US-PATENT-APPL-SN-521998 US-PATENT-CLASS-333-73 US-PATENT-3,437,959	c14 N69-27485 NASA-CASE-XGS-02401 US-PATENT-APPL-SN-502740 US-PATENT-CLASS-250-203 US-PATENT-3,428,812
c09 N69-24324	NASA-CASE-XGS-02171 US-PATENT-APPL-SN-590159 US-PATENT-CLASS-325-446 US-PATENT-3,437,935	c14 N69-27486 NASA-CASE-XAC-11225 US-PATENT-APPL-SN-638707 US-PATENT-CLASS-248-18 US-PATENT-3,430,902
c09 N69-24329	NASA-CASE-XNP-04183 US-PATENT-APPL-SN-546142 US-PATENT-CLASS-179-100.2 US-PATENT-3,428,761	c04 N69-27487 NASA-CASE-XGS-05533 US-PATENT-APPL-SN-568346 US-PATENT-CLASS-195-68 US-PATENT-3,437,560
c09 N69-24330	NASA-CASE-XMS-05307 US-PATENT-APPL-SN-516154 US-PATENT-CLASS-330-29 US-PATENT-3,428,910	c15 N69-27490 NASA-CASE-XLA-02854 US-PATENT-APPL-SN-598118 US-PATENT-CLASS-285-3 US-PATENT-3,427,047
c14 N69-24331	NASA-CASE-XNP-03930 US-PATENT-APPL-SN-526665 US-PATENT-CLASS-250-237 US-PATENT-3,435,246	c16 N69-27491 NASA-CASE-XGS-04480 US-PATENT-APPL-SN-591007 US-PATENT-CLASS-250-199 US-PATENT-3,433,960
c23 N69-24332	NASA-CASE-XNP-02340 US-PATENT-APPL-SN-439490 US-PATENT-CLASS-350-1 US-PATENT-3,427,089	c31 N69-27499 NASA-CASE-XMS-12158-1 US-PATENT-APPL-SN-762936 US-PATENT-CLASS-244-1 US-PATENT-3,439,886
c09 N69-24333	NASA-CASE-XNP-09225 US-PATENT-APPL-SN-640785 US-PATENT-CLASS-340-172.5 US-PATENT-3,431,559	c09 N69-27500 NASA-CASE-XNP-09228 US-PATENT-APPL-SN-584070 US-PATENT-CLASS-307-136 US-PATENT-3,430,063
c07 N69-24334	NASA-CASE-XGS-01110 US-PATENT-APPL-SN-526664 US-PATENT-CLASS-333-8 US-PATENT-3,428,919	c15 N69-27502 NASA-CASE-XNP-04132 US-PATENT-APPL-SN-640788 US-PATENT-CLASS-220-55 US-PATENT-3,429,477
c03 N69-25146	NASA-CASE-XGS-04808 US-PATENT-APPL-SN-640781 US-PATENT-CLASS-321-2 US-PATENT-3,437,903	c14 N69-27503 NASA-CASE-XPR-09479 US-PATENT-APPL-SN-653278 US-PATENT-CLASS-73-49.8 US-PATENT-3,433,079
c17 N69-25147	NASA-CASE-XLE-10466 US-PATENT-APPL-SN-644448 US-PATENT-CLASS-219-411 US-PATENT-3,427,435	c15 N69-27504 NASA-CASE-XNP-09452 US-PATENT-APPL-SN-640789 US-PATENT-CLASS-267-1 US-PATENT-3,430,942
c09 N69-27422	NASA-CASE-XLA-04980 US-PATENT-APPL-SN-577548 US-PATENT-CLASS-317-234 US-PATENT-3,432,730	c15 N69-27505 NASA-CASE-XLA-09122 US-PATENT-APPL-SN-619903 US-PATENT-CLASS-64-28 US-PATENT-3,430,460
c14 N69-27423	NASA-CASE-XAC-02407 US-PATENT-APPL-SN-469013 US-PATENT-CLASS-324-43 US-PATENT-3,437,919	c15 N69-27871 NASA-CASE-XMS-04318 US-PATENT-APPL-SN-521996 US-PATENT-CLASS-219-347 US-PATENT-3,431,397
c14 N69-27431	NASA-CASE-XNP-01483 US-PATENT-APPL-SN-635325 US-PATENT-CLASS-339-17 US-PATENT-3,430,182	c06 N69-31244 NASA-CASE-NPO-10714 US-PATENT-APPL-SN-817569 US-PATENT-CLASS-ERC-10187 US-PATENT-APPL-SN-825253
c14 N69-27432	NASA-CASE-XGS-08266 US-PATENT-APPL-SN-628248 US-PATENT-CLASS-250-203 US-PATENT-3,433,961	c26 N69-33482 NASA-CASE-ERC-10120 US-PATENT-APPL-SN-827597 US-PATENT-CLASS-ERC-10120 US-PATENT-APPL-SN-543774
c14 N69-27459	NASA-CASE-XMS-05909-1	c06 N69-39733 NASA-CASE-XNP-03873 US-PATENT-APPL-SN-543774 US-PATENT-CLASS-73-24 US-PATENT-3,429,177

ACCESSION NUMBER INDEX

c09 N69-39734	NASA-CASE-XMF-04238 US-PATENT-APPL-SN-562443 US-PATENT-CLASS-339-95 US-PATENT-3,458,851		
c15 N69-39735	NASA-CASE-XGS-00963 US-PATENT-APPL-SN-494282 US-PATENT-CLASS-161-182 US-PATENT-3,453,172		
c07 N69-39736	NASA-CASE-XMF-04180 US-PATENT-APPL-SN-545228 US-PATENT-CLASS-250-203 US-PATENT-3,448,273		
c14 N69-39785	NASA-CASE-XKS-03495 US-PATENT-APPL-SN-559351 US-PATENT-CLASS-324-61 US-PATENT-3,426,272		
c15 N69-39786	NASA-CASE-XGS-04554 US-PATENT-APPL-SN-584072 US-PATENT-CLASS-29-472.9 US-PATENT-3,447,233		
c25 N69-39884	NASA-CASE-XLE-00690 US-PATENT-APPL-SN-489442 US-PATENT-CLASS-324-33 US-PATENT-3,447,071		
c09 N69-39885	NASA-CASE-XMS-04061-1 US-PATENT-APPL-SN-511564 US-PATENT-CLASS-328-116 US-PATENT-3,456,201		
c10 N69-39888	NASA-CASE-XNP-02713 US-PATENT-APPL-SN-528031 US-PATENT-CLASS-307-252 US-PATENT-3,458,726		
c06 N69-39889	NASA-CASE-XLE-07087 US-PATENT-APPL-SN-619521 US-PATENT-CLASS-313-231 US-PATENT-3,447,015		
c03 N69-39890	NASA-CASE-XLE-02824 US-PATENT-APPL-SN-487343 US-PATENT-CLASS-310-10 US-PATENT-3,443,128		
c18 N69-39895	NASA-CASE-XNP-06508 US-PATENT-APPL-SN-617776 US-PATENT-CLASS-117-21 US-PATENT-3,446,642		
c14 N69-39896	NASA-CASE-XAC-02970 US-PATENT-APPL-SN-447930 US-PATENT-CLASS-250-217 US-PATENT-3,452,872		
c09 N69-39897	NASA-CASE-XAC-08981 US-PATENT-APPL-SN-634060 US-PATENT-CLASS-317-16 US-PATENT-3,450,946		
c03 N69-39898	NASA-CASE-XLE-01015 US-PATENT-APPL-SN-502746 US-PATENT-CLASS-310-4 US-PATENT-3,446,997		
c09 N69-39929	NASA-CASE-XNP-09776 US-PATENT-APPL-SN-617779 US-PATENT-CLASS-310-4 US-PATENT-3,446,998		
c15 N69-39935	NASA-CASE-XNP-08882 US-PATENT-APPL-SN-640784 US-PATENT-CLASS-220-14 US-PATENT-3,446,387		
c06 N69-39936	NASA-CASE-XNP-04816 US-PATENT-APPL-SN-578926 US-PATENT-CLASS-73-23.1 US-PATENT-3,443,416		
c14 N69-39937	NASA-CASE-XNP-09750 US-PATENT-APPL-SN-632162 US-PATENT-CLASS-250-83 US-PATENT-3,456,112		
c07 N69-39974	NASA-CASE-XGS-05918 US-PATENT-APPL-SN-685497 US-PATENT-CLASS-343-7.5 US-PATENT-3,430,237		
c14 N69-39975	NASA-CASE-XLA-01781 US-PATENT-APPL-SN-441936 US-PATENT-CLASS-73-86 US-PATENT-3,425,268		
c07 N69-39978	NASA-CASE-XGS-02749 US-PATENT-APPL-SN-502753 US-PATENT-CLASS-179-15 US-PATENT-3,450,842		
c18 N69-39979	NASA-CASE-XGS-04119 US-PATENT-APPL-SN-452945 US-PATENT-CLASS-106-74 US-PATENT-3,454,410		
c07 N69-39980	NASA-CASE-XGS-05211		
c01 N69-39981		US-PATENT-APPL-SN-590145 US-PATENT-CLASS-250-209 US-PATENT-3,444,380 NASA-CASE-XLA-06095	
c14 N69-39982		US-PATENT-APPL-SN-683612 US-PATENT-CLASS-244-138 US-PATENT-3,443,779 NASA-CASE-XGS-01725	
c03 N69-39983		US-PATENT-APPL-SN-483891 US-PATENT-CLASS-250-49.5 US-PATENT-3,446,960 NASA-CASE-XLE-02083	
c09 N69-39984		US-PATENT-APPL-SN-568362 US-PATENT-CLASS-310-11 US-PATENT-3,453,462 NASA-CASE-XLA-08507	
c09 N69-39986		US-PATENT-APPL-SN-632154 US-PATENT-CLASS-321-11 US-PATENT-3,434,033 NASA-CASE-XMS-05562-1	
c09 N69-39987		US-PATENT-APPL-SN-529609 US-PATENT-CLASS-330-2 US-PATENT-3,434,064 NASA-CASE-XMS-04215-1	
c12 N69-39988		US-PATENT-APPL-SN-605102 US-PATENT-CLASS-307-265 US-PATENT-3,446,992 NASA-CASE-XLE-02624	
c15 N70-10867		US-PATENT-APPL-SN-635327 US-PATENT-CLASS-35-49 US-PATENT-3,429,058 NASA-CASE-ERC-10208	
c09 N70-11148		US-PATENT-APPL-SN-847596 NASA-CASE-ERC-10072 US-PATENT-APPL-SN-845972 NASA-CASE-NPO-10863	
c06 N70-11251		US-PATENT-APPL-SN-848325 NASA-CASE-NPO-10447 US-PATENT-APPL-SN-848351 NASA-CASE-MSC-12259-1	
c07 N70-12616		US-PATENT-APPL-SN-853763 NASA-CASE-MPS-14741 US-PATENT-APPL-SN-880247 NASA-CASE-XMS-04890-1	
c15 N70-22192		US-PATENT-APPL-SN-797057 US-PATENT-CLASS-60-258 US-PATENT-3,490,238 NASA-CASE-IAR-10367-1	
c03 N70-26817		US-PATENT-APPL-SN-864710 NASA-CASE-IAR-10590-1 US-PATENT-APPL-SN-21732 NASA-CASE-XMF-00447	
c15 N70-26819		US-PATENT-APPL-SN-134479 US-PATENT-CLASS-340-198 US-PATENT-3,041,587 NASA-CASE-XLA-00137	
c14 N70-33179		US-PATENT-APPL-SN-8203 US-PATENT-CLASS-93-1 US-PATENT-3,010,372 NASA-CASE-XLA-00120	
c15 N70-33180		US-PATENT-APPL-SN-853984 US-PATENT-CLASS-250-83.3 US-PATENT-3,038,077 NASA-CASE-XAC-00086	
c21 N70-33181		US-PATENT-APPL-SN-824755 US-PATENT-CLASS-340-147 US-PATENT-3,059,220 NASA-CASE-XLE-00020	
c09 N70-33182		US-PATENT-APPL-SN-387332 US-PATENT-CLASS-253-39.15 US-PATENT-3,011,760 NASA-CASE-XLE-00103	
c15 N70-33226		US-PATENT-APPL-SN-517100 US-PATENT-CLASS-60-39.74 US-PATENT-2,940,259 NASA-CASE-XLA-00165	
c28 N70-33241		US-PATENT-APPL-SN-47120 US-PATENT-CLASS-244-117 US-PATENT-3,028,128 NASA-CASE-XLA-00062	
c31 N70-33242		US-PATENT-APPL-SN-853983 US-PATENT-CLASS-88-16 US-PATENT-3,041,924 NASA-CASE-XLA-00230	
c14 N70-33254		US-PATENT-APPL-SN-41455 US-PATENT-CLASS-244-43 US-PATENT-3,053,484 NASA-CASE-XLE-00092	
c02 N70-33255		US-PATENT-APPL-SN-835146	
c15 N70-33264			

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-253-39.15		US-PATENT-3,130,940
c28 N70-33265	US-PATENT-3,057,597	c28 N70-33356	NASA-CASE-XLE-00267
	NASA-CASE-XLE-00817		US-PATENT-APPL-SN-58147
	US-PATENT-APPL-SN-264735		US-PATENT-CLASS-60-35.5
	US-PATENT-CLASS-60-35.3		US-PATENT-3,016,693
c02 N70-33266	US-PATENT-3,173,246	c28 N70-33372	NASA-CASE-XLE-00037
	NASA-CASE-XLA-00221		US-PATENT-APPL-SN-639589
	US-PATENT-APPL-SN-51473		US-PATENT-CLASS-253-39.15
	US-PATENT-CLASS-244-46		US-PATENT-2,974,925
c25 N70-33267	US-PATENT-3,064,928	c28 N70-33374	NASA-CASE-XLA-00154
	NASA-CASE-XLA-00675		US-PATENT-APPL-SN-31242
	US-PATENT-APPL-SN-178213		US-PATENT-CLASS-60-35.6
	US-PATENT-CLASS-315-111		US-PATENT-3,012,400
c11 N70-33278	US-PATENT-3,171,060	c28 N70-33375	NASA-CASE-XLE-00207
	NASA-CASE-XLE-00168		US-PATENT-APPL-SN-180370
	US-PATENT-APPL-SN-842170		US-PATENT-CLASS-60-35.6
	US-PATENT-CLASS-73-116		US-PATENT-3,173,251
c21 N70-33279	US-PATENT-3,063,291	c15 N70-33376	NASA-CASE-XLE-00101
	NASA-CASE-XFP-00181		US-PATENT-APPL-SN-551961
	US-PATENT-APPL-SN-28175		US-PATENT-CLASS-251-173
	US-PATENT-CLASS-244-83		US-PATENT-2,945,667
c17 N70-33283	US-PATENT-3,028,126	c15 N70-33382	NASA-CASE-XLE-00010
	NASA-CASE-XLE-00151		US-PATENT-APPL-SN-554899
	US-PATENT-APPL-SN-848481		US-PATENT-CLASS-266-19
	US-PATENT-CLASS-75-171		US-PATENT-2,934,331
c28 N70-33284	US-PATENT-2,971,837	c14 N70-33386	NASA-CASE-XLA-00113
	NASA-CASE-XLE-00078		US-PATENT-APPL-SN-2792
	US-PATENT-APPL-SN-18776		US-PATENT-CLASS-73-147
	US-PATENT-CLASS-60-35.6		US-PATENT-3,001,395
c05 N70-33285	US-PATENT-3,049,876	c03 N70-34134	NASA-CASE-XLE-00212
	NASA-CASE-XLA-00118		US-PATENT-APPL-SN-151598
	US-PATENT-APPL-SN-840983		US-PATENT-CLASS-310-4
	US-PATENT-CLASS-5-345		US-PATENT-3,202,844
c02 N70-33286	US-PATENT-3,038,175	c31 N70-34135	NASA-CASE-XLA-00686
	NASA-CASE-XLA-00142		US-PATENT-APPL-SN-195347
	US-PATENT-APPL-SN-26375		US-PATENT-CLASS-343-833
	US-PATENT-CLASS-244-46		US-PATENT-3,202,998
c11 N70-33287	US-PATENT-3,028,122	c14 N70-34156	NASA-CASE-XLE-00266
	NASA-CASE-XLA-00112		US-PATENT-APPL-SN-202024
	US-PATENT-APPL-SN-843022		US-PATENT-CLASS-73-15
	US-PATENT-CLASS-73-147		US-PATENT-3,204,447
c17 N70-33288	US-PATENT-3,005,339	c03 N70-34157	NASA-CASE-XFP-00517
	NASA-CASE-XLE-02428		US-PATENT-APPL-SN-216711
	US-PATENT-APPL-SN-339821		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-29-198		US-PATENT-3,204,889
c12 N70-33305	US-PATENT-3,170,773	c14 N70-34158	NASA-CASE-XGS-00359
	NASA-CASE-XLA-00229		US-PATENT-APPL-SN-94952
	US-PATENT-APPL-SN-18780		US-PATENT-CLASS-250-203
	US-PATENT-CLASS-114-66.5		US-PATENT-3,205,361
c15 N70-33311	US-PATENT-3,016,863	c31 N70-34159	NASA-CASE-XFP-03856
	NASA-CASE-XLE-00046		US-PATENT-APPL-SN-416941
	US-PATENT-APPL-SN-686796		US-PATENT-CLASS-248-188.9
	US-PATENT-CLASS-29-488		US-PATENT-3,208,707
c09 N70-33312	US-PATENT-3,008,229	c02 N70-34160	NASA-CASE-XLA-01804
	NASA-CASE-XLA-00141		US-PATENT-APPL-SN-353637
	US-PATENT-APPL-SN-19971		US-PATENT-CLASS-244-50
	US-PATENT-CLASS-219-34		US-PATENT-3,208,694
c14 N70-33322	US-PATENT-3,005,081	c14 N70-34161	NASA-CASE-XLA-00203
	NASA-CASE-XLA-00135		US-PATENT-APPL-SN-227682
	US-PATENT-APPL-SN-861152		US-PATENT-CLASS-73-105
	US-PATENT-CLASS-244-14		US-PATENT-3,208,272
c15 N70-33323	US-PATENT-3,004,735	c28 N70-34162	NASA-CASE-XFP-01544
	NASA-CASE-XFP-00341		US-PATENT-APPL-SN-394638
	US-PATENT-APPL-SN-77256		US-PATENT-CLASS-60-35.55
	US-PATENT-CLASS-62-45		US-PATENT-3,208,215
c11 N70-33329	US-PATENT-3,012,407	c28 N70-34175	NASA-CASE-XLE-01783
	NASA-CASE-XLA-00119		US-PATENT-APPL-SN-313132
	US-PATENT-APPL-SN-842171		US-PATENT-CLASS-60-35.5
	US-PATENT-CLASS-240-1.2		US-PATENT-3,210,927
c15 N70-33330	US-PATENT-2,984,735	c31 N70-34176	NASA-CASE-XFP-00389
	NASA-CASE-XLE-00023		US-PATENT-APPL-SN-151114
	US-PATENT-APPL-SN-512352		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-78-1		US-PATENT-3,202,381
c28 N70-33331	US-PATENT-2,991,671	c02 N70-34178	NASA-CASE-XLA-00166
	NASA-CASE-XLA-00105		US-PATENT-APPL-SN-84961
	US-PATENT-APPL-SN-719173		US-PATENT-CLASS-244-46
	US-PATENT-CLASS-60-35.6		US-PATENT-3,087,692
c02 N70-33332	US-PATENT-3,001,363	c15 N70-34247	NASA-CASE-XLE-00288
	NASA-CASE-XLA-00087		US-PATENT-APPL-SN-118200
	US-PATENT-APPL-SN-811509		US-PATENT-CLASS-62-50
	US-PATENT-CLASS-244-12		US-PATENT-3,068,658
c03 N70-33343	US-PATENT-2,991,961	c22 N70-34248	NASA-CASE-XLE-00818
	NASA-CASE-XLA-00115		US-PATENT-APPL-SN-253006
	US-PATENT-APPL-SN-847027		US-PATENT-CLASS-60-35.5
	US-PATENT-CLASS-244-1		US-PATENT-3,184,915
c33 N70-33344	US-PATENT-3,001,739	c15 N70-34249	NASA-CASE-XFP-00375
	NASA-CASE-XMS-00086		US-PATENT-APPL-SN-166969
	US-PATENT-APPL-SN-300113		US-PATENT-CLASS-72-56
	US-PATENT-CLASS-244-1		US-PATENT-3,188,844

ACCESSION NUMBER INDEX

c28 N70-34294	NASA-CASE-XLE-00208 US-PATENT-APPL-SN-106135 US-PATENT-CLASS-60-35.54 US-PATENT-3,132,476	c11 N70-34786	US-PATENT-3,193,883 NASA-CASE-XLA-00493 US-PATENT-APPL-SN-202029 US-PATENT-CLASS-73-432 US-PATENT-3,196,690
c21 N70-34295	NASA-CASE-XLA-01989 US-PATENT-APPL-SN-305020 US-PATENT-CLASS-244-1 US-PATENT-3,189,299	c08 N70-34787	NASA-CASE-XGS-00689 US-PATENT-APPL-SN-250451 US-PATENT-CLASS-235-176 US-PATENT-3,196,261
c31 N70-34296	NASA-CASE-XLA-00678 US-PATENT-APPL-SN-197551 US-PATENT-CLASS-244-1 US-PATENT-3,169,725	c28 N70-34788	NASA-CASE-XLE-00388 US-PATENT-APPL-SN-234568 US-PATENT-CLASS-55-306 US-PATENT-3,196,598
c21 N70-34297	NASA-CASE-XGS-00466 US-PATENT-APPL-SN-123597 US-PATENT-CLASS-250-83.3 US-PATENT-3,188,472	c14 N70-34794	NASA-CASE-XMF-00479 US-PATENT-APPL-SN-169977 US-PATENT-CLASS-73-71.2 US-PATENT-3,194,060
c14 N70-34298	NASA-CASE-XMF-00462 US-PATENT-APPL-SN-148001 US-PATENT-CLASS-88-14 US-PATENT-3,185,023	c14 N70-34799	NASA-CASE-XLA-00492 US-PATENT-APPL-SN-284265 US-PATENT-CLASS-73-88.5 US-PATENT-3,199,340
c22 N70-34501	NASA-CASE-XLE-00298 US-PATENT-APPL-SN-277402 US-PATENT-CLASS-176-35 US-PATENT-3,198,709	c33 N70-34812	NASA-CASE-XLE-00387 US-PATENT-APPL-SN-203411 US-PATENT-CLASS-219-19 US-PATENT-3,108,171
c09 N70-34502	NASA-CASE-XMF-00421 US-PATENT-APPL-SN-197548 US-PATENT-CLASS-317-140 US-PATENT-3,189,794	c14 N70-34813	NASA-CASE-XAC-00073 US-PATENT-APPL-SN-47122 US-PATENT-CLASS-73-147 US-PATENT-3,100,990
c21 N70-34539	NASA-CASE-XMF-00185 US-PATENT-APPL-SN-97112 US-PATENT-CLASS-244-76 US-PATENT-3,070,330	c15 N70-34814	NASA-CASE-XMF-00392 US-PATENT-APPL-SN-151112 US-PATENT-CLASS-219-137 US-PATENT-3,102,948
c33 N70-34540	NASA-CASE-XLA-00330 US-PATENT-APPL-SN-264729 US-PATENT-CLASS-219-121 US-PATENT-3,201,560	c11 N70-34815	NASA-CASE-XAC-00399 US-PATENT-APPL-SN-134481 US-PATENT-CLASS-35-12 US-PATENT-3,196,557
c33 N70-34545	NASA-CASE-XLE-00490 US-PATENT-APPL-SN-252259 US-PATENT-CLASS-219-347 US-PATENT-3,189,726	c1 N70-34816	NASA-CASE-XAC-00042 US-PATENT-APPL-SN-734805 US-PATENT-CLASS-73-398 US-PATENT-3,022,672
c09 N70-34559	NASA-CASE-LAR-10218-1 US-PATENT-APPL-SN-47441 US-PATENT-CLASS-219-121 US-PATENT-3,201,560	c15 N70-34817	NASA-CASE-XAC-00074 US-PATENT-APPL-SN-47123 US-PATENT-CLASS-137-340 US-PATENT-3,158,172
c22 N70-34572	NASA-CASE-XLE-00321 US-PATENT-APPL-SN-134478 US-PATENT-CLASS-176-52 US-PATENT-3,202,582	c14 N70-34818	NASA-CASE-XLE-00503 US-PATENT-APPL-SN-261912 US-PATENT-CLASS-73-136 US-PATENT-3,196,675
c09 N70-34596	NASA-CASE-XMF-00324 US-PATENT-APPL-SN-109789 US-PATENT-CLASS-339-176 US-PATENT-3,189,864	c09 N70-34819	NASA-CASE-XGS-00381 US-PATENT-APPL-SN-104188 US-PATENT-CLASS-307-88.5 US-PATENT-3,085,165
c03 N70-34646	NASA-CASE-NPO-11138 US-PATENT-APPL-SN-9251 US-PATENT-CLASS-219-347 US-PATENT-3,189,726	c14 N70-34820	NASA-CASE-XAC-00030 US-PATENT-APPL-SN-760819 US-PATENT-CLASS-73-401 US-PATENT-3,024,659
c25 N70-34661	NASA-CASE-XLA-00147 US-PATENT-APPL-SN-178215 US-PATENT-CLASS-313-156 US-PATENT-3,201,635	c11 N70-34844	NASA-CASE-XLE-00252 US-PATENT-APPL-SN-144803 US-PATENT-CLASS-73-116 US-PATENT-3,199,343
c15 N70-34664	NASA-CASE-XMF-00515 US-PATENT-APPL-SN-278790 US-PATENT-CLASS-308-9 US-PATENT-3,199,931	c15 N70-34850	NASA-CASE-XLA-00754 US-PATENT-APPL-SN-209479 US-PATENT-CLASS-244-100 US-PATENT-3,143,321
c03 N70-34667	NASA-CASE-XLA-00326 US-PATENT-APPL-SN-318443 US-PATENT-CLASS-89-1 US-PATENT-3,200,706	c02 N70-34856	NASA-CASE-XAC-00139 US-PATENT-APPL-SN-168560 US-PATENT-CLASS-244-51 US-PATENT-3,144,999
c14 N70-34669	NASA-CASE-XLE-00724 US-PATENT-APPL-SN-284757 US-PATENT-CLASS-176-19 US-PATENT-3,205,141	c05 N70-34857	NASA-CASE-XMS-00863 US-PATENT-APPL-SN-221634 US-PATENT-CLASS-9-11 US-PATENT-3,155,992
c08 N70-34675	NASA-CASE-XNP-04162-1 US-PATENT-APPL-SN-872664 US-PATENT-CLASS-11106 US-PATENT-APPL-SN-15020	c02 N70-34858	NASA-CASE-XLA-00806 US-PATENT-APPL-SN-26375 US-PATENT-APPL-SN-181828 US-PATENT-CLASS-244-46
c14 N70-34697	NASA-CASE-NPO-11106 US-PATENT-APPL-SN-15020 US-PATENT-CLASS-10682 US-PATENT-APPL-SN-15023	c15 N70-34859	NASA-CASE-XLE-00715 US-PATENT-APPL-SN-212174 US-PATENT-CLASS-251-333 US-PATENT-3,191,907
c15 N70-34699	NASA-CASE-NPO-10682 US-PATENT-APPL-SN-15023 US-PATENT-CLASS-10682 US-PATENT-APPL-SN-15023	c28 N70-34860	NASA-CASE-XLE-00144 US-PATENT-APPL-SN-177684 US-PATENT-CLASS-60-35.6 US-PATENT-3,120,101
c14 N70-34705	NASA-CASE-XMF-00456 US-PATENT-APPL-SN-298800 US-PATENT-CLASS-73-88.5 US-PATENT-3,212,325	c15 N70-34861	NASA-CASE-XLE-00810 US-PATENT-APPL-SN-249540 US-PATENT-CLASS-188-1
c08 N70-34743	NASA-CASE-XGS-00174 US-PATENT-APPL-SN-120803 US-PATENT-CLASS-307-88 US-PATENT-3,198,955		
c08 N70-34778	NASA-CASE-XLA-00471 US-PATENT-APPL-SN-197553 US-PATENT-CLASS-235-154 US-PATENT-3,194,951		
c27 N70-34783	NASA-CASE-XLA-00304 US-PATENT-APPL-SN-54552 US-PATENT-CLASS-18-39		

ACCESSION NUMBER INDEX

c06 N70-34986	US-PATENT-3,164,222 NASA-CASE-XNP-00733 US-PATENT-APPL-SN-256484 US-PATENT-CLASS-62-15 US-PATENT-3,192,730	c14 N70-35587	US-PATENT-CLASS-60-35.6 US-PATENT-3,191,379 NASA-CASE-FRC-10053 US-PATENT-APPL-SN-33398
c31 N70-34966	NASA-CASE-XPR-00929 US-PATENT-APPL-SN-290868 US-PATENT-CLASS-35-12 US-PATENT-3,191,316	c14 N70-35666	NASA-CASE-XNP-00646 US-PATENT-APPL-SN-173981 US-PATENT-CLASS-324-33 US-PATENT-3,171,081
c15 N70-34967	NASA-CASE-XNP-00595 US-PATENT-APPL-SN-188594 US-PATENT-CLASS-204-298 US-PATENT-3,189,535	c15 N70-35679	NASA-CASE-HSC-12279-1 US-PATENT-APPL-SN-24154 NASA-CASE-XMS-00259 US-PATENT-APPL-SN-145007
c15 N70-35087	NASA-CASE-IGS-00587 US-PATENT-APPL-SN-313135 US-PATENT-CLASS-137-340 US-PATENT-3,211,169	c18 N70-36400	US-PATENT-CLASS-117-69 US-PATENT-3,157,529 NASA-CASE-XLA-00482 US-PATENT-APPL-SN-166970
c21 N70-35089	NASA-CASE-XNP-00438 US-PATENT-APPL-SN-180381 US-PATENT-CLASS-250-203 US-PATENT-3,205,362	c15 N70-36409	US-PATENT-CLASS-29-423 US-PATENT-3,160,950 NASA-CASE-XNP-00641 US-PATENT-APPL-SN-221945
c05 N70-35152	NASA-CASE-XMS-01240 US-PATENT-APPL-SN-331324 US-PATENT-CLASS-297-216 US-PATENT-3,165,356	c15 N70-36411	US-PATENT-CLASS-244-1 US-PATENT-3,158,336 NASA-CASE-XLE-00164 US-PATENT-APPL-SN-107870
c09 N70-35219	NASA-CASE-XNP-00611 US-PATENT-APPL-SN-140443 US-PATENT-CLASS-343-781 US-PATENT-3,209,360	c15 N70-36412	US-PATENT-CLASS-60-39.66 US-PATENT-3,162,012 NASA-CASE-XLE-00170 US-PATENT-APPL-SN-232914
c14 N70-35220	NASA-CASE-XNP-00449 US-PATENT-APPL-SN-118169 US-PATENT-CLASS-330-49 US-PATENT-3,160,825	c15 N70-36492	US-PATENT-CLASS-253-66 US-PATENT-3,164,369 NASA-CASE-XLE-00397 US-PATENT-APPL-SN-195346
c14 N70-35368	NASA-CASE-XLE-00335 US-PATENT-APPL-SN-197554 US-PATENT-CLASS-73-15.6 US-PATENT-3,176,499	c05 N70-36493	US-PATENT-CLASS-137-614 US-PATENT-3,170,486 NASA-CASE-XMS-00864 US-PATENT-APPL-SN-258932
c28 N70-35381	NASA-CASE-XHQ-01897 US-PATENT-APPL-SN-129579 US-PATENT-CLASS-60-35.6 US-PATENT-3,121,309	c09 N70-36494	US-PATENT-CLASS-9-316 US-PATENT-3,152,344 NASA-CASE-XNP-00369 US-PATENT-APPL-SN-134782
c09 N70-35382	NASA-CASE-XNP-00540 US-PATENT-APPL-SN-140509 US-PATENT-CLASS-343-781 US-PATENT-3,212,096	c15 N70-36535	US-PATENT-CLASS-339-176 US-PATENT-3,149,897 NASA-CASE-XLE-00303 US-PATENT-APPL-SN-182692
c11 N70-35383	NASA-CASE-XNP-00580 US-PATENT-APPL-SN-343425 US-PATENT-CLASS-248-119 US-PATENT-3,194,525	c32 N70-36536	US-PATENT-CLASS-60-35.6 US-PATENT-3,170,286 NASA-CASE-XLA-00204 US-PATENT-APPL-SN-189648
c14 N70-35394	NASA-CASE-XNP-00708 US-PATENT-APPL-SN-281069 US-PATENT-CLASS-35-45 US-PATENT-3,196,558	c17 N70-36616	US-PATENT-CLASS-135-1 US-PATENT-3,170,471 NASA-CASE-XLE-00283 US-PATENT-APPL-SN-107866
c21 N70-35395	NASA-CASE-XNP-00465 US-PATENT-APPL-SN-180379 US-PATENT-CLASS-244-1 US-PATENT-3,206,141	c33 N70-36617	US-PATENT-CLASS-75-171 US-PATENT-3,167,426 NASA-CASE-XLA-01291 US-PATENT-APPL-SN-277961
c15 N70-35407	NASA-CASE-XLE-00815 US-PATENT-APPL-SN-300712 US-PATENT-CLASS-251-11 US-PATENT-3,211,414	c14 N70-36618	US-PATENT-CLASS-244-1 US-PATENT-3,176,933 NASA-CASE-XLE-00143 US-PATENT-CLASS-324-61
c03 N70-35408	NASA-CASE-IGS-01593 US-PATENT-APPL-SN-178721 US-PATENT-CLASS-310-5 US-PATENT-3,205,381	c31 N70-36654	US-PATENT-CLASS-60-35.5 US-PATENT-3,176,222 NASA-CASE-XNP-02853 US-PATENT-APPL-SN-360182
c15 N70-35409	NASA-CASE-XHQ-01208 US-PATENT-APPL-SN-42022 US-PATENT-CLASS-121-38 US-PATENT-3,088,441	c03 N70-36778	US-PATENT-CLASS-244-100 US-PATENT-3,175,789 NASA-CASE-XLA-00838 US-PATENT-APPL-SN-192016
c28 N70-35422	NASA-CASE-LEW-10814-1 US-PATENT-APPL-SN-38262 NASA-CASE-XNP-00432 US-PATENT-APPL-SN-127234	c28 N70-36802	US-PATENT-CLASS-9-8 US-PATENT-3,150,387 NASA-CASE-XNP-00923 US-PATENT-APPL-SN-264736
c08 N70-35423	US-PATENT-CLASS-340-347 US-PATENT-3,172,097 NASA-CASE-XNP-00683 US-PATENT-APPL-SN-251451	c03 N70-36803	US-PATENT-CLASS-60-35.5 US-PATENT-3,159,967 NASA-CASE-XNP-00644 US-PATENT-APPL-SN-212496
c09 N70-35425	US-PATENT-CLASS-343-781 US-PATENT-3,209,361 NASA-CASE-IGS-00809 US-PATENT-APPL-SN-85585	c02 N70-36804	US-PATENT-CLASS-310-11 US-PATENT-3,158,764 NASA-CASE-XLA-00898 US-PATENT-APPL-SN-227683
c21 N70-35427	US-PATENT-CLASS-88-1 US-PATENT-3,083,611 NASA-CASE-XAC-00435 US-PATENT-APPL-SN-164428	c26 N70-36805	US-PATENT-CLASS-244-152 US-PATENT-3,170,660 NASA-CASE-XLA-00158 US-PATENT-APPL-SN-221637
c09 N70-35440	US-PATENT-CLASS-330-14 US-PATENT-3,196,362 NASA-CASE-IGS-03556 US-PATENT-APPL-SN-94259	c28 N70-36806	US-PATENT-CLASS-23-208 US-PATENT-3,174,827 NASA-CASE-XLE-00145 US-PATENT-APPL-SN-173081
c27 N70-35534			US-PATENT-CLASS-60-35.6

ACCESSION NUMBER INDEX

c14 N70-36807	US-PATENT-3,174,279 NASA-CASE-XLA-00100 US-PATENT-APPL-SN-534901 US-PATENT-CLASS-73-178	c33 N70-37979	NASA-CASE-XLA-00349 US-PATENT-APPL-SN-141220 US-PATENT-CLASS-62-467 US-PATENT-3,090,212
c14 N70-36808	US-PATENT-3,168,827 NASA-CASE-XLE-00301 US-PATENT-APPL-SN-138540 US-PATENT-CLASS-176-19	c28 N70-37980	NASA-CASE-XLE-00342 US-PATENT-APPL-SN-60531 US-PATENT-CLASS-60-35.5 US-PATENT-3,119,232
c14 N70-36824	US-PATENT-3,160,567 NASA-CASE-XLA-00481 US-PATENT-APPL-SN-120797 US-PATENT-CLASS-73-212	c31 N70-37981	NASA-CASE-XLA-00138 US-PATENT-APPL-SN-8204 US-PATENT-CLASS-343-18 US-PATENT-3,115,630
c02 N70-36825	US-PATENT-3,170,324 NASA-CASE-XLA-01583 US-PATENT-APPL-SN-327565 US-PATENT-CLASS-244-103	c31 N70-37986	NASA-CASE-XLA-00241 US-PATENT-APPL-SN-61329 US-PATENT-CLASS-244-1 US-PATENT-3,104,079
c31 N70-36845	US-PATENT-3,169,001 NASA-CASE-XNP-02108 US-PATENT-APPL-SN-372727 US-PATENT-CLASS-244-100	c02 N70-38009	NASA-CASE-XLA-00195 US-PATENT-APPL-SN-60536 US-PATENT-CLASS-244-140 US-PATENT-3,079,113
c33 N70-36846	US-PATENT-3,181,821 NASA-CASE-XLA-00189 US-PATENT-APPL-SN-223003 US-PATENT-CLASS-102-49	c31 N70-38010	NASA-CASE-XLA-00805 US-PATENT-APPL-SN-181829 US-PATENT-CLASS-244-46 US-PATENT-3,120,361
c33 N70-36847	US-PATENT-3,180,264 NASA-CASE-XNP-00463 US-PATENT-APPL-SN-259487 US-PATENT-CLASS-165-96	c02 N70-38011	NASA-CASE-XLA-00350 US-PATENT-APPL-SN-153266 US-PATENT-CLASS-244-46 US-PATENT-3,104,082
c15 N70-36901	US-PATENT-3,177,933 NASA-CASE-XPR-00811 US-PATENT-APPL-SN-257346 US-PATENT-CLASS-29-234	c15 N70-38020	NASA-CASE-XLE-00345 US-PATENT-APPL-SN-183978 US-PATENT-CLASS-62-55 US-PATENT-3,122,000
c14 N70-36907	US-PATENT-3,166,834 NASA-CASE-XNP-00614 US-PATENT-APPL-SN-247419 US-PATENT-CLASS-33-1	c28 N70-38181	NASA-CASE-XNP-00217 US-PATENT-APPL-SN-180374 US-PATENT-CLASS-102-49 US-PATENT-3,122,098
c15 N70-36908	US-PATENT-3,163,935 NASA-CASE-XNP-00214 US-PATENT-APPL-SN-180377 US-PATENT-CLASS-137-625.69	c11 N70-38182	NASA-CASE-XNP-00612 US-PATENT-APPL-SN-228507 US-PATENT-CLASS-220-63 US-PATENT-3,123,248
c28 N70-36910	US-PATENT-3,180,728 NASA-CASE-XNP-00610 US-PATENT-APPL-SN-211464 US-PATENT-CLASS-60-35.6	c11 N70-38196	NASA-CASE-XNP-00424 US-PATENT-APPL-SN-159804 US-PATENT-CLASS-73-517 US-PATENT-3,141,340
c07 N70-36911	US-PATENT-3,170,290 NASA-CASE-XNP-00748 US-PATENT-APPL-SN-184649 US-PATENT-CLASS-343-17.2	c28 N70-38197	NASA-CASE-XLE-00455 US-PATENT-APPL-SN-203409 US-PATENT-CLASS-75-222 US-PATENT-3,141,769
c11 N70-36913	US-PATENT-3,183,506 NASA-CASE-XNP-00411 US-PATENT-APPL-SN-158914 US-PATENT-CLASS-73-147	c17 N70-38198	NASA-CASE-XLE-00231 US-PATENT-APPL-SN-64226 US-PATENT-CLASS-22-203 US-PATENT-3,138,837
c21 N70-36938	US-PATENT-3,182,496 NASA-CASE-XNP-00294 US-PATENT-APPL-SN-182696 US-PATENT-CLASS-60-35.5	c28 N70-38199	NASA-CASE-XLE-00111 US-PATENT-APPL-SN-835152 US-PATENT-CLASS-60-39.48 US-PATENT-3,136,123
c21 N70-36943	US-PATENT-3,178,883 NASA-CASE-XLA-00281 US-PATENT-APPL-SN-84962 US-PATENT-CLASS-244-1	c07 N70-38200	NASA-CASE-XLA-00414 US-PATENT-APPL-SN-209478 US-PATENT-CLASS-343-705 US-PATENT-3,132,342
c25 N70-36946	US-PATENT-3,180,587 NASA-CASE-XLA-01354 US-PATENT-APPL-SN-253774 US-PATENT-CLASS-60-35.5	c09 N70-38201	NASA-CASE-XNP-00738 US-PATENT-APPL-SN-204015 US-PATENT-CLASS-174-115 US-PATENT-3,106,603
c15 N70-36947	US-PATENT-3,174,278 NASA-CASE-XNP-00416 US-PATENT-APPL-SN-180395 US-PATENT-CLASS-189-36	c11 N70-38202	NASA-CASE-XNP-00425 US-PATENT-APPL-SN-180396 US-PATENT-CLASS-89-1.7 US-PATENT-3,112,672
c28 N70-37245	US-PATENT-3,169,613 NASA-CASE-XLE-00376 US-PATENT-APPL-SN-139007 US-PATENT-CLASS-60-35.5	c15 N70-38225	NASA-CASE-XNP-00840 US-PATENT-APPL-SN-269222 US-PATENT-CLASS-267-1 US-PATENT-3,127,157
c31 N70-37924	US-PATENT-3,156,090 NASA-CASE-XGS-00260 US-PATENT-APPL-SN-187446 US-PATENT-CLASS-244-1	c28 N70-38249	NASA-CASE-XNP-00249 US-PATENT-APPL-SN-180391 US-PATENT-CLASS-60-35.6 US-PATENT-3,120,738
c15 N70-37925	US-PATENT-3,090,580 NASA-CASE-XLA-00128 US-PATENT-APPL-SN-32496 US-PATENT-CLASS-73-384	c17 N70-38490	NASA-CASE-XLE-00228 US-PATENT-APPL-SN-64224 US-PATENT-CLASS-29-183.5 US-PATENT-3,084,421
c31 N70-37938	US-PATENT-3,093,000 NASA-CASE-XLA-00149 US-PATENT-APPL-SN-847023 US-PATENT-CLASS-244-1	c28 N70-38504	NASA-CASE-XNS-00583 US-PATENT-APPL-SN-182699 US-PATENT-CLASS-60-35.6 US-PATENT-3,135,089
c02 N70-37939	US-PATENT-3,093,346 NASA-CASE-XLE-00222 US-PATENT-APPL-SN-77252 US-PATENT-CLASS-244-113	c28 N70-38505	NASA-CASE-XLE-00323 US-PATENT-APPL-SN-183977 US-PATENT-CLASS-60-35.6 US-PATENT-3,135,090
	US-PATENT-3,098,630	c15 N70-38601	NASA-CASE-XLA-00679

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-213836		US-PATENT-CLASS-128-29
	US-PATENT-CLASS-188-1		US-PATENT-3, 229, 689
	US-PATENT-3, 128, 845		NASA-CASE-XMF-00640
c14 N70-38602	NASA-CASE-XLE-00243	c15 N70-39924	US-PATENT-APPL-SN-341467
	US-PATENT-APPL-SN-118203		US-PATENT-CLASS-228-50
	US-PATENT-CLASS-324-106		US-PATENT-3, 229, 884
	US-PATENT-3, 202, 915	c28 N70-39925	NASA-CASE-XLE-00660
c15 N70-38603	NASA-CASE-XMF-00450		US-PATENT-APPL-SN-231604
	US-PATENT-APPL-SN-180394		US-PATENT-CLASS-313-11.5
	US-PATENT-CLASS-137-495		US-PATENT-3, 229, 139
	US-PATENT-3, 105, 515	c03 N70-39930	NASA-CASE-XLA-00791
c09 N70-38604	NASA-CASE-XGS-00458		US-PATENT-APPL-SN-347960
	US-PATENT-APPL-SN-139006		US-PATENT-CLASS-102-49
	US-PATENT-CLASS-307-88		US-PATENT-3, 229, 636
	US-PATENT-3, 128, 389	c28 N70-39931	NASA-CASE-XMF-01104
c15 N70-38620	NASA-CASE-XMF-00476		US-PATENT-APPL-SN-290867
	US-PATENT-APPL-SN-182698		US-PATENT-CLASS-60-39.48
	US-PATENT-CLASS-308-9		US-PATENT-3, 229, 463
	US-PATENT-3, 132, 903	c14 N70-40003	NASA-CASE-XGS-01036
c28 N70-38645	NASA-CASE-XMF-00234		US-PATENT-APPL-SN-227692
	US-PATENT-APPL-SN-180382		US-PATENT-CLASS-88-14
	US-PATENT-CLASS-60-35.54		US-PATENT-3, 229, 568
	US-PATENT-3, 139, 725	c26 N70-40015	NASA-CASE-XLA-02057
c11 N70-38675	NASA-CASE-XMF-00459		US-PATENT-APPL-SN-320595
	US-PATENT-APPL-SN-180384		US-PATENT-CLASS-23-277
	US-PATENT-CLASS-73-432		US-PATENT-3, 230, 053
	US-PATENT-3, 187, 583	c30 N70-40016	NASA-CASE-XGS-00619
c31 N70-38676	NASA-CASE-XLA-00258		US-PATENT-APPL-SN-264728
	US-PATENT-APPL-SN-101029		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-244-1		US-PATENT-3, 229, 930
	US-PATENT-3, 144, 219	c15 N70-40062	NASA-CASE-XMS-01624
c28 N70-38710	NASA-CASE-XMF-00148		US-PATENT-APPL-SN-422867
	US-PATENT-APPL-SN-118202		US-PATENT-CLASS-55-408
	US-PATENT-CLASS-60-35.6		US-PATENT-3, 224, 173
	US-PATENT-3, 122, 885	c07 N70-40063	NASA-CASE-XMS-00893
c28 N70-38711	NASA-CASE-XLE-00057		US-PATENT-APPL-SN-251449
	US-PATENT-APPL-SN-0914		US-PATENT-CLASS-343-18
	US-PATENT-CLASS-60-35.55		US-PATENT-3, 224, 001
	US-PATENT-3, 080, 711	c09 N70-40123	NASA-CASE-XGS-01881
c09 N70-38712	NASA-CASE-XMF-01129		US-PATENT-APPL-SN-155584
	US-PATENT-APPL-SN-273534		US-PATENT-CLASS-324-43
	US-PATENT-CLASS-318-260		US-PATENT-3, 218, 547
	US-PATENT-3, 147, 422	c12 N70-40124	NASA-CASE-XLE-01512
c03 N70-38713	NASA-CASE-XGS-00473		US-PATENT-APPL-SN-315096
	US-PATENT-APPL-SN-139012		US-PATENT-CLASS-149-2
	US-PATENT-CLASS-200-39		US-PATENT-3, 215, 572
	US-PATENT-3, 141, 932	c08 N70-40125	NASA-CASE-XAC-00404
c09 N70-38995	NASA-CASE-XGS-00131		US-PATENT-APPL-SN-209801
	US-PATENT-APPL-SN-14488		US-PATENT-CLASS-340-347
	US-PATENT-CLASS-331-113		US-PATENT-3, 216, 007
	US-PATENT-3, 150, 329	c15 N70-40156	NASA-CASE-XLA-01019
c15 N70-38996	NASA-CASE-XMF-00676		US-PATENT-APPL-SN-282817
	US-PATENT-APPL-SN-290870		US-PATENT-CLASS-248-358
	US-PATENT-CLASS-222-389		US-PATENT-3, 223, 374
	US-PATENT-3, 170, 605	c14 N70-40157	NASA-CASE-XLA-00487
c12 N70-38997	NASA-CASE-XMF-00658		US-PATENT-APPL-SN-236748
	US-PATENT-APPL-SN-216710		US-PATENT-CLASS-73-178
	US-PATENT-CLASS-137-1		US-PATENT-3, 221, 549
	US-PATENT-3, 110, 318	c15 N70-40180	NASA-CASE-XAC-00472
c09 N70-38998	NASA-CASE-XMF-00431		US-PATENT-APPL-SN-236749
	US-PATENT-APPL-SN-180380		US-PATENT-CLASS-73-142
	US-PATENT-CLASS-340-147		US-PATENT-3, 224, 263
	US-PATENT-3, 100, 294	c14 N70-40201	NASA-CASE-XLE-00720
c28 N70-39895	NASA-CASE-XLE-00085		US-PATENT-APPL-SN-302749
	US-PATENT-APPL-SN-25175		US-PATENT-CLASS-73-134
	US-PATENT-CLASS-253-66		US-PATENT-3, 221, 547
	US-PATENT-3, 070, 349	c07 N70-40202	NASA-CASE-XMF-00437
c15 N70-39896	NASA-CASE-XMF-00339		US-PATENT-APPL-SN-120795
	US-PATENT-APPL-SN-110591		US-PATENT-CLASS-343-705
	US-PATENT-CLASS-308-9		US-PATENT-3, 077, 599
	US-PATENT-3, 070, 407	c14 N70-40203	NASA-CASE-XLE-00702
c18 N70-39897	NASA-CASE-XLE-00353		US-PATENT-APPL-SN-258931
	US-PATENT-APPL-SN-65548		US-PATENT-CLASS-73-116
	US-PATENT-CLASS-252-58		US-PATENT-3, 201, 980
	US-PATENT-3, 072, 574	c15 N70-40204	NASA-CASE-XMF-00722
c14 N70-39898	NASA-CASE-XMF-00480		US-PATENT-APPL-SN-347626
	US-PATENT-APPL-SN-144804		US-PATENT-CLASS-228-50
	US-PATENT-CLASS-248-346		US-PATENT-3, 219, 250
	US-PATENT-3, 069, 123	c14 N70-40233	NASA-CASE-XMS-01546
c28 N70-39899	NASA-CASE-XLE-00005		US-PATENT-APPL-SN-386467
	US-PATENT-APPL-SN-718095		US-PATENT-CLASS-222-45
	US-PATENT-CLASS-60-35.6		US-PATENT-3, 228, 558
	US-PATENT-3, 067, 573	c09 N70-40234	NASA-CASE-XLE-01716
c09 N70-39915	NASA-CASE-XAC-00060		US-PATENT-APPL-SN-349778
	US-PATENT-APPL-SN-47121		US-PATENT-CLASS-126-270
	US-PATENT-CLASS-200-19		US-PATENT-3, 229, 682
	US-PATENT-3, 076, 065	c14 N70-40238	NASA-CASE-XMF-00908
c05 N70-39922	NASA-CASE-XMS-01115		US-PATENT-APPL-SN-241085
	US-PATENT-APPL-SN-277404		US-PATENT-CLASS-250-201

ACCESSION NUMBER INDEX

c14 N70-40239	US-PATENT-3,229,099 NASA-CASE-XLA-00183 US-PATENT-APPL-SN-199202 US-PATENT-CLASS-250-203 US-PATENT-3,229,102	c31 N70-41373	NASA-CASE-XMS-01906 US-PATENT-APPL-SN-339040 US-PATENT-CLASS-244-1 US-PATENT-3,300,162
c14 N70-40240	NASA-CASE-XHQ-04106 US-PATENT-APPL-SN-91180 US-PATENT-CLASS-250-105 US-PATENT-3,143,651	c28 N70-41447	NASA-CASE-XNP-00732 US-PATENT-APPL-SN-261918 US-PATENT-CLASS-210-314 US-PATENT-3,295,684
c09 N70-40272	NASA-CASE-XMF-00701 US-PATENT-APPL-SN-261917 US-PATENT-CLASS-307-88.5 US-PATENT-3,218,479	c28 N70-41576	NASA-CASE-XLE-00519 US-PATENT-APPL-SN-249542 US-PATENT-CLASS-313-63 US-PATENT-3,287,582
c14 N70-40273	NASA-CASE-XNP-00637 US-PATENT-APPL-SN-280776 US-PATENT-CLASS-95-58 US-PATENT-3,217,624	c16 N70-41578	NASA-CASE-XGS-01504 US-PATENT-APPL-SN-340113 US-PATENT-CLASS-331-94 US-PATENT-3,287,660
c30 N70-40309	NASA-CASE-XLA-00210 US-PATENT-APPL-SN-82658 US-PATENT-CLASS-343-18 US-PATENT-3,220,004	c32 N70-41579	NASA-CASE-XLE-00620 US-PATENT-APPL-SN-304698 US-PATENT-CLASS-138-119 US-PATENT-3,295,556
30 N70-40353	NASA-CASE-XMF-03198 US-PATENT-APPL-SN-370134 US-PATENT-CLASS-89-1.7 US-PATENT-3,224,336	c03 N70-41580	NASA-CASE-XLA-04622 US-PATENT-APPL-SN-277833 US-PATENT-CLASS-126-270 US-PATENT-3,295,512
c15 N70-40354	NASA-CASE-XNP-01045 US-PATENT-APPL-SN-355130 US-PATENT-CLASS-188-1 US-PATENT-3,228,492	c05 N70-41581	NASA-CASE-XAC-01404 US-PATENT-APPL-SN-363348 US-PATENT-CLASS-74-471 US-PATENT-3,295,386
c28 N70-40367	NASA-CASE-XLE-00177 US-PATENT-APPL-SN-10812 US-PATENT-CLASS-60-35.3 US-PATENT-3,045,424	c28 N70-41582	NASA-CASE-XMF-01813 US-PATENT-APPL-SN-375674 US-PATENT-CLASS-181-52 US-PATENT-3,270,835
c14 N70-40400	NASA-CASE-XAC-00648 US-PATENT-APPL-SN-216939 US-PATENT-CLASS-73-147 US-PATENT-3,218,850	c18 N70-41583	NASA-CASE-XMF-01030 US-PATENT-APPL-SN-317389 US-PATENT-CLASS-161-115 US-PATENT-3,296,060
c28 N70-41275	NASA-CASE-XNP-01390 US-PATENT-APPL-SN-424157 US-PATENT-CLASS-60-259 US-PATENT-3,300,981	c31 N70-41588	NASA-CASE-XMF-01973 US-PATENT-APPL-SN-375682 US-PATENT-CLASS-244-1 US-PATENT-3,295,790
c05 N70-41297	NASA-CASE-XMS-01492 US-PATENT-APPL-SN-398131 US-PATENT-CLASS-55-35 US-PATENT-3,300,949	c02 N70-41589	NASA-CASE-XMF-01174 US-PATENT-APPL-SN-410331 US-PATENT-CLASS-244-100 US-PATENT-3,295,798
c15 N70-41310	NASA-CASE-XNP-01567 US-PATENT-APPL-SN-448898 US-PATENT-CLASS-248-178 US-PATENT-3,295,808	c25 N70-41628	NASA-CASE-XAC-00319 US-PATENT-APPL-SN-77251 US-PATENT-CLASS-315-111 US-PATENT-3,229,155
c28 N70-41311	NASA-CASE-XNP-00876 US-PATENT-APPL-SN-377784 US-PATENT-CLASS-60-251 US-PATENT-3,298,182	c15 N70-41629	NASA-CASE-XGS-02441 US-PATENT-APPL-SN-411944 US-PATENT-CLASS-285-331 US-PATENT-3,301,578
c05 N70-41329	NASA-CASE-XMS-01615 US-PATENT-APPL-SN-329595 US-PATENT-CLASS-128-2.05 US-PATENT-3,298,362	c02 N70-41630	NASA-CASE-XMS-00907 US-PATENT-APPL-SN-428890 US-PATENT-CLASS-244-138 US-PATENT-3,301,511
c14 N70-41330	NASA-CASE-XLE-00688 US-PATENT-APPL-SN-334672 US-PATENT-CLASS-73-32 US-PATENT-3,298,221	c31 N70-41631	NASA-CASE-XMS-04142 US-PATENT-APPL-SN-422865 US-PATENT-CLASS-244-1 US-PATENT-3,301,507
c07 N70-41331	NASA-CASE-XLA-01400 US-PATENT-APPL-SN-363653 US-PATENT-CLASS-325-65 US-PATENT-3,296,531	c15 N70-41646	NASA-CASE-XLE-01449 US-PATENT-APPL-SN-330209 US-PATENT-CLASS-137-197 US-PATENT-3,295,545
c14 N70-41332	NASA-CASE-XLA-00495 US-PATENT-APPL-SN-269215 US-PATENT-CLASS-324-70 US-PATENT-3,296,526	c14 N70-41647	NASA-CASE-XGS-00769 US-PATENT-APPL-SN-319893 US-PATENT-CLASS-242-55.19 US-PATENT-3,295,782
c14 N70-41366	NASA-CASE-XLA-01353 US-PATENT-APPL-SN-403960 US-PATENT-CLASS-73-147 US-PATENT-3,301,046	c09 N70-41655	NASA-CASE-XMF-00906 US-PATENT-APPL-SN-264731 US-PATENT-CLASS-324-113 US-PATENT-3,287,640
c32 N70-41367	NASA-CASE-XGS-00938 US-PATENT-APPL-SN-392970 US-PATENT-CLASS-214-1 US-PATENT-3,295,699	c09 N70-41675	NASA-CASE-XMS-01315 US-PATENT-APPL-SN-347101 US-PATENT-CLASS-307-88.5 US-PATENT-3,302,040
c32 N70-41370	NASA-CASE-XNP-01962 US-PATENT-APPL-SN-369640 US-PATENT-CLASS-92-94 US-PATENT-3,298,285	c14 N70-41676	NASA-CASE-XGS-01231 US-PATENT-APPL-SN-346356 US-PATENT-CLASS-250-71 US-PATENT-3,302,023
c15 N70-41371	NASA-CASE-XMF-01452 US-PATENT-APPL-SN-356692 US-PATENT-CLASS-29-271 US-PATENT-3,300,847	c11 N70-41677	NASA-CASE-XMF-01772 US-PATENT-APPL-SN-370135 US-PATENT-CLASS-73-116 US-PATENT-3,295,366
c07 N70-41372	NASA-CASE-XLA-01127 US-PATENT-APPL-SN-363654 US-PATENT-CLASS-325-65 US-PATENT-3,300,731	c07 N70-41678	NASA-CASE-XGS-02608 US-PATENT-APPL-SN-456578 US-PATENT-CLASS-343-18 US-PATENT-3,289,205
		c15 N70-41679	NASA-CASE-XLA-01441

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-516151		US-PATENT-CLASS-60-257
	US-PATENT-CLASS-102-49		US-PATENT-3,304,724
	US-PATENT-3,302,569		NASA-CASE-XAC-03392
C07 N70-41680	NASA-CASE-XNP-02723	C03 N70-41954	US-PATENT-APPL-SN-430776
	US-PATENT-APPL-SN-371857		US-PATENT-CLASS-74-519
	US-PATENT-CLASS-343-14		US-PATENT-3,304,799
	US-PATENT-3,287,725	C14 N70-41955	NASA-CASE-XNP-02029
C14 N70-41681	NASA-CASE-XAC-02877		US-PATENT-APPL-SN-221276
	US-PATENT-APPL-SN-449902		US-PATENT-CLASS-88-14
	US-PATENT-CLASS-73-30		US-PATENT-3,323,408
	US-PATENT-3,295,360	C14 N70-41957	NASA-CASE-XAC-01101
C14 N70-41682	NASA-CASE-XMS-05936		US-PATENT-APPL-SN-355129
	US-PATENT-APPL-SN-557868		US-PATENT-CLASS-73-141
	US-PATENT-CLASS-73-517		US-PATENT-3,304,773
	US-PATENT-3,295,377	C15 N70-41960	NASA-CASE-XNP-05082
C09 N70-41717	NASA-CASE-XMS-02087		US-PATENT-APPL-SN-521753
	US-PATENT-APPL-SN-439889		US-PATENT-CLASS-174-68.5
	US-PATENT-CLASS-165-1		US-PATENT-3,321,570
	US-PATENT-3,301,315	C08 N70-41961	NASA-CASE-XNP-00911
C14 N70-41807	NASA-CASE-XNP-01472		US-PATENT-APPL-SN-280777
	US-PATENT-APPL-SN-321656		US-PATENT-CLASS-178-67
	US-PATENT-CLASS-178-7.2		US-PATENT-3,305,636
	US-PATENT-3,287,496	C10 N70-41964	NASA-CASE-XGS-01983
C15 N70-41808	NASA-CASE-XMS-02532		US-PATENT-APPL-SN-388023
	US-PATENT-APPL-SN-398132		US-PATENT-CLASS-333-79
	US-PATENT-CLASS-285-27		US-PATENT-3,305,801
	US-PATENT-3,287,031	C28 N70-41967	NASA-CASE-XLA-02651
C15 N70-41811	NASA-CASE-XNP-01152		US-PATENT-APPL-SN-449901
	US-PATENT-APPL-SN-369337		US-PATENT-CLASS-102-49
	US-PATENT-CLASS-137-539		US-PATENT-3,304,865
	US-PATENT-3,302,662	C10 N70-41991	NASA-CASE-XNP-03128
C14 N70-41812	NASA-CASE-XMS-03792		US-PATENT-APPL-SN-397665
	US-PATENT-APPL-SN-516159		US-PATENT-CLASS-250-83.6
	US-PATENT-CLASS-200-61.45		US-PATENT-3,321,628
	US-PATENT-3,303,304	C28 N70-41992	NASA-CASE-XLE-00685
C28 N70-41818	NASA-CASE-XLE-00150		US-PATENT-APPL-SN-407595
	US-PATENT-APPL-SN-843032		US-PATENT-CLASS-60-260
	US-PATENT-CLASS-29-157.3		US-PATENT-3,321,922
	US-PATENT-3,035,333	C15 N70-41993	NASA-CASE-XLE-01300
C05 N70-41819	NASA-CASE-XAC-00405		US-PATENT-APPL-SN-380960
	US-PATENT-APPL-SN-158916		US-PATENT-CLASS-73-100
	US-PATENT-CLASS-128-1		US-PATENT-3,323,356
	US-PATENT-3,302,633	C14 N70-41994	NASA-CASE-XNP-02822
C15 N70-41829	NASA-CASE-XNP-01371		US-PATENT-APPL-SN-403959
	US-PATENT-APPL-SN-353634		US-PATENT-CLASS-73-194
	US-PATENT-CLASS-287-119		US-PATENT-3,323,362
	US-PATENT-3,302,960	C05 N70-42000	NASA-CASE-XMS-03371
C31 N70-41855	NASA-CASE-XNP-02982		US-PATENT-APPL-SN-418931
	US-PATENT-APPL-SN-388966		US-PATENT-CLASS-73-432
	US-PATENT-CLASS-244-1		US-PATENT-3,323,370
	US-PATENT-3,304,028	C32 N70-42003	NASA-CASE-XLA-02131
C21 N70-41856	NASA-CASE-XNP-01307		US-PATENT-APPL-SN-377777
	US-PATENT-APPL-SN-390250		US-PATENT-CLASS-73-90
	US-PATENT-CLASS-244-1		US-PATENT-3,304,768
	US-PATENT-3,286,953	C31 N70-42015	NASA-CASE-XLA-01967
C02 N70-41863	NASA-CASE-XLA-01220		US-PATENT-APPL-SN-457875
	US-PATENT-APPL-SN-379417		US-PATENT-CLASS-244-135
	US-PATENT-CLASS-244-16		US-PATENT-3,321,159
	US-PATENT-3,286,957	C02 N70-42016	NASA-CASE-XLA-01290
C03 N70-41864	NASA-CASE-XGS-01419		US-PATENT-APPL-SN-393451
	US-PATENT-APPL-SN-323182		US-PATENT-CLASS-244-42
	US-PATENT-CLASS-136-179		US-PATENT-3,321,157
	US-PATENT-3,287,174	C15 N70-42017	NASA-CASE-XMS-04072
C31 N70-41871	NASA-CASE-XMS-04390		US-PATENT-APPL-SN-485960
	US-PATENT-APPL-SN-502729		US-PATENT-CLASS-30-228
	US-PATENT-CLASS-62-45		US-PATENT-3,320,669
	US-PATENT-3,304,729	C10 N70-42032	NASA-CASE-XNP-02654
C27 N70-41897	NASA-CASE-XNP-01749		US-PATENT-APPL-SN-435387
	US-PATENT-APPL-SN-440033		US-PATENT-CLASS-307-88.5
	US-PATENT-CLASS-149-109		US-PATENT-3,321,645
	US-PATENT-3,305,415	C15 N70-42033	NASA-CASE-XNP-02092
C28 N70-41922	NASA-CASE-XNP-02839		US-PATENT-APPL-SN-371856
	US-PATENT-APPL-SN-477333		US-PATENT-CLASS-156-345
	US-PATENT-CLASS-60-202		US-PATENT-3,323,967
	US-PATENT-3,304,718	C15 N70-42034	NASA-CASE-XNP-01412
C09 N70-41929	NASA-CASE-XNP-01951		US-PATENT-APPL-SN-426702
	US-PATENT-APPL-SN-413662		US-PATENT-CLASS-175-310
	US-PATENT-CLASS-335-300		US-PATENT-3,321,034
	US-PATENT-3,305,810	C03 N70-42073	NASA-CASE-XPR-04104
C21 N70-41930	NASA-CASE-XNP-01501		US-PATENT-APPL-SN-476759
	US-PATENT-APPL-SN-432027		US-PATENT-CLASS-74-471
	US-PATENT-CLASS-343-12		US-PATENT-3,323,386
	US-PATENT-3,305,861	C14 N70-42074	NASA-CASE-XLE-02998
C14 N70-41946	NASA-CASE-XLE-00011		US-PATENT-APPL-SN-516794
	US-PATENT-APPL-SN-735911		US-PATENT-CLASS-116-117
	US-PATENT-CLASS-88-14		US-PATENT-3,323,484
	US-PATENT-2,960,002	C31 N70-42075	NASA-CASE-XMS-02677
C31 N70-41948	NASA-CASE-XNP-01899		US-PATENT-APPL-SN-472066
	US-PATENT-APPL-SN-428882		US-PATENT-CLASS-244-1

ACCESSION NUMBER INDEX

c14 N71-10500	US-PATENT-3,321,154 NASA-CASE-XLE-01609 US-PATENT-APPL-SN-438797 US-PATENT-CLASS-73-290 US-PATENT-3,326,093	c31 N71-10747	NASA-CASE-XMP-00442 US-PATENT-APPL-SN-202030 US-PATENT-CLASS-343-705 US-PATENT-3,277,486
c24 N71-10560	NASA-CASE-XLE-00808 US-PATENT-APPL-SN-307269 US-PATENT-CLASS-148-188 US-PATENT-3,310,443	c11 N71-10748	NASA-CASE-XPR-04147 US-PATENT-APPL-SN-476761 US-PATENT-CLASS-35-12 US-PATENT-3,281,965
c28 N71-10574	NASA-CASE-XLE-01902 US-PATENT-APPL-SN-485656 US-PATENT-CLASS-60-202 US-PATENT-3,324,659	c21 N71-10771	NASA-CASE-XNP-03914 US-PATENT-APPL-SN-468647 US-PATENT-CLASS-250-203 US-PATENT-3,317,731
c15 N71-10577	NASA-CASE-XLE-04677 US-PATENT-APPL-SN-447928 US-PATENT-CLASS-220-67 US-PATENT-3,326,407	c18 N71-10772	NASA-CASE-XLE-01765 US-PATENT-APPL-SN-316477 US-PATENT-CLASS-117-65.2 US-PATENT-3,317,341
c10 N71-10578	NASA-CASE-XMS-01554 US-PATENT-APPL-SN-414482 US-PATENT-CLASS-323-8 US-PATENT-3,325,723	c14 N71-10773	NASA-CASE-XLA-02605 US-PATENT-APPL-SN-459138 US-PATENT-CLASS-177-210 US-PATENT-3,316,991
c31 N71-10582	NASA-CASE-XLA-02132 US-PATENT-APPL-SN-453227 US-PATENT-CLASS-102-49 US-PATENT-3,286,630	c14 N71-10774	NASA-CASE-XLA-01131 US-PATENT-APPL-SN-322545 US-PATENT-CLASS-73-23 US-PATENT-3,312,101
c11 N71-10604	NASA-CASE-XMP-03248 US-PATENT-APPL-SN-377780 US-PATENT-CLASS-73-116 US-PATENT-3,310,980	c07 N71-10775	NASA-CASE-XLA-00901 US-PATENT-APPL-SN-269212 US-PATENT-CLASS-325-305 US-PATENT-3,311,832
c26 N71-10607	NASA-CASE-XLE-02792 US-PATENT-APPL-SN-352400 US-PATENT-CLASS-148-1.5 US-PATENT-3,311,510	c11 N71-10776	NASA-CASE-XLA-03127 US-PATENT-APPL-SN-447927 US-PATENT-CLASS-35-12 US-PATENT-3,281,964
c03 N71-10608	NASA-CASE-XGS-03505 US-PATENT-APPL-SN-498167 US-PATENT-CLASS-136-28 US-PATENT-3,311,502	c11 N71-10777	NASA-CASE-XLE-01533 US-PATENT-APPL-SN-334678 US-PATENT-CLASS-55-400 US-PATENT-3,282,035
c07 N71-10609	NASA-CASE-XGS-01223 US-PATENT-APPL-SN-319892 US-PATENT-CLASS-242-55.19 US-PATENT-3,311,315	c15 N71-10778	NASA-CASE-XNP-00710 US-PATENT-APPL-SN-271821 US-PATENT-CLASS-251-61 US-PATENT-3,317,180
c14 N71-10616	NASA-CASE-XMP-02433 US-PATENT-APPL-SN-405630 US-PATENT-CLASS-73-70.2 US-PATENT-3,310,978	c14 N71-10779	NASA-CASE-XMP-02307 US-PATENT-APPL-SN-422869 US-PATENT-CLASS-73-40.5 US-PATENT-3,316,752
c15 N71-10617	NASA-CASE-XMP-01887 US-PATENT-APPL-SN-422868 US-PATENT-CLASS-308-5 US-PATENT-3,325,229	c28 N71-10780	NASA-CASE-XLA-01043 US-PATENT-APPL-SN-379768 US-PATENT-CLASS-60-225 US-PATENT-3,316,716
c39 N71-10618	NASA-CASE-XNP-03332 US-PATENT-APPL-SN-368123 US-PATENT-CLASS-313-63 US-PATENT-3,311,772	c14 N71-10781	NASA-CASE-XLE-01481 US-PATENT-APPL-SN-319905 US-PATENT-CLASS-73-99 US-PATENT-3,282,091
c15 N71-10658	NASA-CASE-XMS-03252 US-PATENT-APPL-SN-425362 US-PATENT-CLASS-60-54.5 US-PATENT-3,318,093	c15 N71-10782	NASA-CASE-XKS-01985 US-PATENT-APPL-SN-357337 US-PATENT-CLASS-285-24 US-PATENT-3,319,979
c09 N71-10659	NASA-CASE-XNP-01383 US-PATENT-APPL-SN-369336 US-PATENT-CLASS-324-77 US-PATENT-3,317,832	c14 N71-10797	NASA-CASE-XLE-01246 US-PATENT-APPL-SN-249537 US-PATENT-CLASS-324-61 US-PATENT-3,324,388
c15 N71-10672	NASA-CASE-XLA-01091 US-PATENT-APPL-SN-351259 US-PATENT-CLASS-264-102 US-PATENT-3,317,641	c09 N71-10798	NASA-CASE-XMS-00945 US-PATENT-APPL-SN-385530 US-PATENT-CLASS-330-22 US-PATENT-3,319,175
c09 N71-10673	NASA-CASE-XGS-01473 US-PATENT-APPL-SN-364867 US-PATENT-CLASS-307-88.5 US-PATENT-3,317,751	c15 N71-10799	NASA-CASE-XLA-01807 US-PATENT-APPL-SN-442558 US-PATENT-CLASS-287-189.36 US-PATENT-3,318,622
c07 N71-10676	NASA-CASE-XNP-03134 US-PATENT-APPL-SN-422095 US-PATENT-CLASS-333-21 US-PATENT-3,324,423	c15 N71-10809	NASA-CASE-XMP-02107 US-PATENT-APPL-SN-384811 US-PATENT-CLASS-140-124 US-PATENT-3,318,343
c09 N71-10677	NASA-CASE-XGS-01451 US-PATENT-APPL-SN-405629 US-PATENT-CLASS-318-138 US-PATENT-3,324,370	c02 N71-11037	NASA-CASE-XLA-06824-2 US-PATENT-APPL-SN-775966 US-PATENT-CLASS-244-31 US-PATENT-3,508,724
c21 N71-10678	NASA-CASE-XGS-01159 US-PATENT-APPL-SN-332313 US-PATENT-CLASS-250-203 US-PATENT-3,311,748	c02 N71-11038	NASA-CASE-XLA-06958 US-PATENT-APPL-SN-551815 US-PATENT-CLASS-244-44 US-PATENT-3,310,261
c03 N71-10728	NASA-CASE-XNP-01464 US-PATENT-APPL-SN-430778 US-PATENT-CLASS-136-182 US-PATENT-3,317,352	c02 N71-11039	NASA-CASE-HSC-12111-1 US-PATENT-APPL-SN-775877 US-PATENT-CLASS-244-23 US-PATENT-3,490,721
c11 N71-10746	NASA-CASE-XMS-02977 US-PATENT-APPL-SN-416938 US-PATENT-CLASS-35-12 US-PATENT-3,281,963	c02 N71-11041	NASA-CASE-XLA-03659 US-PATENT-APPL-SN-444087 US-PATENT-CLASS-244-46 US-PATENT-3,270,989
		c02 N71-11043	NASA-CASE-XLA-08801-1

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-710533		US-PATENT-3, 532, 673
	US-PATENT-CLASS-244-43	c06 N71-11239	NASA-CASE-XNP-08655
	US-PATENT-3, 493, 197		US-PATENT-APPL-SN-593593
c03 N71-11049	NASA-CASE-NPO-10109		US-PATENT-CLASS-260-72.5
	US-PATENT-APPL-SN-701654		US-PATENT-3, 516, 970
	US-PATENT-CLASS-136-89	c06 N71-11240	NASA-CASE-MPS-13994-1
	US-PATENT-3, 532, 551		US-PATENT-APPL-SN-715975
c03 N71-11050	NASA-CASE-XNP-06506		US-PATENT-CLASS-260-46.5
	US-PATENT-APPL-SN-577778		US-PATENT-3, 516, 964
	US-PATENT-CLASS-136-89	c06 N71-11242	NASA-CASE-XNP-08656
	US-PATENT-3, 446, 676		US-PATENT-APPL-SN-593605
c03 N71-11051	NASA-CASE-XNP-03378		US-PATENT-CLASS-260-2.5
	US-PATENT-APPL-SN-360878		US-PATENT-3, 493, 524
	US-PATENT-CLASS-136-170	c06 N71-11243	NASA-CASE-XNP-08652
	US-PATENT-3, 282, 740		US-PATENT-APPL-SN-593606
c03 N71-11052	NASA-CASE-XLE-04526		US-PATENT-CLASS-260-2
	US-PATENT-APPL-SN-640457		US-PATENT-3, 493, 522
	US-PATENT-CLASS-136-86	c07 N71-11266	NASA-CASE-XLA-03076
	US-PATENT-3, 507, 704		US-PATENT-APPL-SN-591004
c03 N71-11053	NASA-CASE-XGS-00886		US-PATENT-CLASS-325-42
	US-PATENT-APPL-SN-319894		US-PATENT-3, 508, 152
	US-PATENT-CLASS-136-132	c07 N71-11267	NASA-CASE-XNP-10843
	US-PATENT-3, 282, 739		US-PATENT-APPL-SN-649358
c03 N71-11055	NASA-CASE-XNP-05843		US-PATENT-CLASS-325-363
	US-PATENT-APPL-SN-666553		US-PATENT-3, 508, 156
	US-PATENT-CLASS-310-4	c07 N71-11281	NASA-CASE-XNP-10830
	US-PATENT-3, 509, 386		US-PATENT-APPL-SN-692332
c03 N71-11056	NASA-CASE-XNP-05821		US-PATENT-CLASS-178-69.5
	US-PATENT-APPL-SN-545223		US-PATENT-3, 535, 451
	US-PATENT-CLASS-136-89	c07 N71-11282	NASA-CASE-XGS-02889
	US-PATENT-3, 493, 437		US-PATENT-APPL-SN-685748
c03 N71-11057	NASA-CASE-MSC-13112		US-PATENT-CLASS-329-104
	US-PATENT-APPL-SN-765738		US-PATENT-3, 501, 704
	US-PATENT-CLASS-290-40	c07 N71-11284	NASA-CASE-XLA-01552
	US-PATENT-3, 508, 070		US-PATENT-APPL-SN-332339
c03 N71-11058	NASA-CASE-XGS-01475		US-PATENT-CLASS-325-65
	US-PATENT-APPL-SN-344793		US-PATENT-3, 277, 375
	US-PATENT-CLASS-244-1	c07 N71-11285	NASA-CASE-NPO-10539
	US-PATENT-3, 459, 391		US-PATENT-APPL-SN-743429
c05 N71-11189	NASA-CASE-XPR-10856		US-PATENT-CLASS-343-779
	US-PATENT-APPL-SN-626376		US-PATENT-3, 534, 375
	US-PATENT-3, 534, 727	c07 N71-11298	NASA-CASE-XNP-01160
c05 N71-11190	NASA-CASE-XMS-04935		US-PATENT-APPL-SN-310507
	US-PATENT-APPL-SN-518487		US-PATENT-CLASS-340-198
	US-PATENT-CLASS-128-142.5		US-PATENT-3, 243, 791
c05 N71-11193	US-PATENT-3, 502, 074	c07 N71-11300	NASA-CASE-XMS-07168
	NASA-CASE-ARC-10043-1		US-PATENT-APPL-SN-769788
	US-PATENT-APPL-SN-676012		US-PATENT-CLASS-178-6.6
	US-PATENT-CLASS-128-2.1		US-PATENT-3, 493, 677
c05 N71-11194	US-PATENT-3, 508, 541	c21 N71-11766	NASA-CASE-LAR-10403
	NASA-CASE-XLA-05332		US-PATENT-APPL-SN-676391
	US-PATENT-APPL-SN-757861		US-PATENT-CLASS-343-6.5
	US-PATENT-CLASS-2-2.1		US-PATENT-3, 447, 154
c05 N71-11195	US-PATENT-3, 538, 407	c01 N71-12217	NASA-CASE-FRC-10063
	NASA-CASE-LAR-10007-1		US-PATENT-APPL-SN-21263
	US-PATENT-APPL-SN-770203		NASA-CASE-XLA-04451
	US-PATENT-CLASS-2-2.1	c02 N71-12243	US-PATENT-APPL-SN-457876
	US-PATENT-3, 534, 406		US-PATENT-CLASS-244-45
c05 N71-11199	NASA-CASE-XKS-02342		US-PATENT-3, 310, 262
	US-PATENT-APPL-SN-407603	c03 N71-12255	NASA-CASE-NPO-10404
	US-PATENT-CLASS-182-191		US-PATENT-APPL-SN-728234
	US-PATENT-3, 262, 518		US-PATENT-CLASS-321-2
c05 N71-11202	NASA-CASE-XPR-08403		US-PATENT-3, 532, 960
	US-PATENT-APPL-SN-704420	c03 N71-12258	NASA-CASE-XLA-00711
	US-PATENT-CLASS-73-23		US-PATENT-APPL-SN-357334
	US-PATENT-3, 507, 146		US-PATENT-CLASS-89-1.7
c05 N71-11203	NASA-CASE-XMS-09632-1		US-PATENT-3, 249, 012
	US-PATENT-APPL-SN-791693	c03 N71-12259	NASA-CASE-XLA-01396
	US-PATENT-CLASS-128-142.5		US-PATENT-APPL-SN-357336
	US-PATENT-3, 500, 827		US-PATENT-CLASS-89-1.7
c05 N71-11207	NASA-CASE-XLA-03213		US-PATENT-3, 249, 013
	US-PATENT-APPL-SN-621715	c03 N71-12260	NASA-CASE-XNP-01020
	US-PATENT-CLASS-202-182		US-PATENT-APPL-SN-430780
	US-PATENT-3, 444, 051		US-PATENT-CLASS-60-97
c06 N71-11235	NASA-CASE-XLA-03104		US-PATENT-3, 238, 730
	US-PATENT-APPL-SN-510155	c05 N71-12335	NASA-CASE-XMS-00784
	US-PATENT-CLASS-260-78		US-PATENT-APPL-SN-358127
	US-PATENT-3, 518, 232		US-PATENT-CLASS-2-2.1
c06 N71-11236	NASA-CASE-XNP-08651		US-PATENT-3, 286, 274
	US-PATENT-APPL-SN-593594	c05 N71-12336	NASA-CASE-XMS-05304
	US-PATENT-CLASS-260-72.5		US-PATENT-APPL-SN-511567
	US-PATENT-3, 526, 611		US-PATENT-CLASS-244-4
c06 N71-11237	NASA-CASE-XNP-10753		US-PATENT-3, 270, 986
	US-PATENT-APPL-SN-668751	c05 N71-12341	NASA-CASE-MPS-14671
	US-PATENT-CLASS-260-46.5		US-PATENT-APPL-SN-723476
	US-PATENT-3, 444, 127		US-PATENT-CLASS-297-385
c06 N71-11238	NASA-CASE-XLA-08802		US-PATENT-3, 516, 711
	US-PATENT-APPL-SN-640454	c05 N71-12342	NASA-CASE-XAC-05706
	US-PATENT-CLASS-260-78		US-PATENT-APPL-SN-592694

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-325-143		US-PATENT-3,535,702
	US-PATENT-3,453,546	c09 N71-12516	NASA-CASE-XNP-09768
c05 N71-12343	NASA-CASP-HSC-11253		US-PATENT-APPL-SN-698629
	US-PATENT-APPL-SN-695973		US-PATENT-CLASS-307-243
	US-PATENT-CLASS-297-68		US-PATENT-3,535,554
	US-PATENT-3,466,085	c09 N71-12517	NASA-CASE-XAC-10608-1
c05 N71-12344	NASA-CASE-XMS-09636		US-PATENT-APPL-SN-710561
	US-PATENT-APPL-SN-586330		US-PATENT-CLASS-333-80
	US-PATENT-CLASS-2-2.1		US-PATENT-3,493,901
	US-PATENT-3,492,672	c09 N71-12518	NASA-CASE-XNP-09808
c05 N71-12345	NASA-CASE-HSC-12086-1		US-PATENT-APPL-SN-692471
	US-PATENT-APPL-SN-812999		US-PATENT-CLASS-200-61.42
	US-PATENT-CLASS-29-400		US-PATENT-3,488,461
	US-PATENT-3,490,130	c09 N71-12519	NASA-CASE-XNP-06519
c05 N71-12346	NASA-CASE-XMS-04212-1		US-PATENT-APPL-SN-656952
	US-PATENT-APPL-SN-607461		US-PATENT-CLASS-328-110
	US-PATENT-CLASS-128-2.1		US-PATENT-3,535,644
	US-PATENT-3,490,440	c09 N71-12520	NASA-CASE-WPO-10230
c05 N71-12351	NASA-CASE-LAR-10056		US-PATENT-APPL-SN-691735
	US-PATENT-APPL-SN-674357		US-PATENT-CLASS-307-229
	US-PATENT-CLASS-224-25		US-PATENT-3,535,547
	US-PATENT-3,493,153	c09 N71-12521	NASA-CASE-ARC-10030
c07 N71-12389	NASA-CASE-XLA-01090		US-PATENT-APPL-SN-679885
	US-PATENT-APPL-SN-741824		US-PATENT-CLASS-313-110
	US-PATENT-CLASS-250-199		US-PATENT-3,493,805
	US-PATENT-RE-26,548	c09 N71-12526	NASA-CASE-HSC-12135-1
c07 N71-12390	NASA-CASE-XER-09213		US-PATENT-APPL-SN-761404
	US-PATENT-APPL-SN-668302		US-PATENT-CLASS-317-31
	US-PATENT-CLASS-332-9		US-PATENT-3,448,341
	US-PATENT-3,535,657	c09 N71-12539	NASA-CASE-ERC-10552
c07 N71-12391	NASA-CASE-XMS-05454-1		US-PATENT-APPL-SN-720125
	US-PATENT-APPL-SN-771803		US-PATENT-CLASS-178-7.7
	US-PATENT-CLASS-343-17.7		US-PATENT-3,535,446
	US-PATENT-3,471,858	c09 N71-12540	NASA-CASE-XNP-01058
c07 N71-12392	NASA-CASE-YGS-01590		US-PATENT-APPL-SN-313136
	US-PATENT-APPL-SN-584067		US-PATENT-CLASS-315-160
	US-PATENT-CLASS-178-88		US-PATENT-3,271,620
	US-PATENT-3,491,202	c10 N71-12554	NASA-CASE-WPO-10348
c07 N71-12396	NASA-CASE-GSC-10452		US-PATENT-APPL-SN-704668
	US-PATENT-APPL-SN-797794		US-PATENT-CLASS-324-95
	US-PATENT-CLASS-343-776		US-PATENT-3,532,979
	US-PATENT-3,495,262	c01 N71-13410	NASA-CASE-XLA-00755
c08 N71-12494	NASA-CASE-YGS-04767		US-PATENT-APPL-SN-247423
	US-PATENT-APPL-SN-645584		US-PATENT-CLASS-244-35
	US-PATENT-CLASS-307-296		US-PATENT-3,270,988
	US-PATENT-3,535,560	c01 N71-13411	NASA-CASE-XLA-05828
c08 N71-12500	NASA-CASE-XNP-07040		US-PATENT-APPL-SN-509460
	US-PATENT-APPL-SN-649357		US-PATENT-CLASS-235-61.6
	US-PATENT-CLASS-332-31		US-PATENT-3,500,020
	US-PATENT-3,535,658	c02 N71-13421	NASA-CASE-XPR-00756
c08 N71-12501	NASA-CASE-XLA-00670		US-PATENT-APPL-SN-212173
	US-PATENT-APPL-SN-235162		US-PATENT-CLASS-235-150.22
	US-PATENT-CLASS-340-347		US-PATENT-3,258,582
	US-PATENT-3,251,053	c02 N71-13422	NASA-CASE-XLA-06339
c08 N71-12502	NASA-CASE-WPO-10112		US-PATENT-APPL-SN-801336
	US-PATENT-APPL-SN-673226		US-PATENT-CLASS-244-76
	US-PATENT-CLASS-340-172.5		US-PATENT-3,534,930
	US-PATENT-3,533,074	c06 N71-13461	NASA-CASE-LAR-10180-1
c08 N71-12503	NASA-CASE-WPO-10351		US-PATENT-APPL-SN-709398
	US-PATENT-APPL-SN-712065		US-PATENT-CLASS-250-41.9
	US-PATENT-CLASS-328-37		US-PATENT-3,521,054
	US-PATENT-3,535,642	c09 N71-13486	NASA-CASE-HFS-20333
c08 N71-12504	NASA-CASE-XNP-05835		US-PATENT-APPL-SN-820965
	US-PATENT-APPL-SN-627257		US-PATENT-CLASS-307-149
	US-PATENT-CLASS-340-174		US-PATENT-3,535,543
	US-PATENT-3,493,942	c09 N71-13518	NASA-CASE-HSC-12178-1
c08 N71-12505	NASA-CASE-XNP-05415		US-PATENT-APPL-SN-845365
	US-PATENT-APPL-SN-578932		US-PATENT-CLASS-315-241
	US-PATENT-CLASS-340-146.2		US-PATENT-3,530,336
	US-PATENT-3,493,929	c09 N71-13521	NASA-CASE-XKS-09348
c08 N71-12506	NASA-CASE-XNP-08832		US-PATENT-APPL-SN-677505
	US-PATENT-APPL-SN-681692		US-PATENT-CLASS-343-703
	US-PATENT-CLASS-340-172.5		US-PATENT-3,526,897
	US-PATENT-3,535,696	c09 N71-13522	NASA-CASE-LBW-10364-1
c08 N71-12507	NASA-CASE-XLA-01952		US-PATENT-APPL-SN-822518
	US-PATENT-APPL-SN-676386		US-PATENT-CLASS-317-258
	US-PATENT-CLASS-340-324		US-PATENT-3,535,602
	US-PATENT-3,537,096	c09 N71-13530	NASA-CASE-XNP-00384
c09 N71-12513	NASA-CASE-XGS-07801		US-PATENT-APPL-SN-180392
	US-PATENT-APPL-SN-640452		US-PATENT-CLASS-324-132
	US-PATENT-CLASS-148-188		US-PATENT-3,263,171
	US-PATENT-3,490,965	c09 N71-13531	NASA-CASE-HSC-12033-1
c09 N71-12514	NASA-CASE-XLA-07497		US-PATENT-APPL-SN-602828
	US-PATENT-APPL-SN-631848		US-PATENT-CLASS-330-11
	US-PATENT-CLASS-307-252		US-PATENT-3,526,845
	US-PATENT-3,491,255	c10 N71-13537	NASA-CASE-XNP-08274
c09 N71-12515	NASA-CASE-XNP-08836		US-PATENT-APPL-SN-730703
	US-PATENT-APPL-SN-668968		US-PATENT-CLASS-73-382
	US-PATENT-CLASS-340-174		US-PATENT-3,520,190

ACCESSION NUMBER INDEX

c10 N71-13545	NASA-CASE-LAR-10774 US-PATENT-APPL-SN-802820 US-PATENT-CLASS-73-1 US-PATENT-3,534,584		
c15 N71-13789	NASA-CASE-XLA-01141 US-PATENT-APPL-SN-353632 US-PATENT-CLASS-102-49 US-PATENT-3,263,610		
c21 N71-13958	NASA-CASE-GSC-10087-2 US-PATENT-APPL-SN-701744 US-PATENT-CLASS-343-112 US-PATENT-3,495,260		
c18 N71-14014	NASA-CASE-GSC-10072 US-PATENT-APPL-SN-686296 US-PATENT-CLASS-106-15 US-PATENT-3,493,401		
c33 N71-14032	NASA-CASE-XLE-05913 US-PATENT-APPL-SN-551933 US-PATENT-CLASS-117-106 US-PATENT-3,490,939		
c33 N71-14035	NASA-CASE-XLE-03307 US-PATENT-APPL-SN-613979 US-PATENT-CLASS-244-1 US-PATENT-3,490,718		
c28 N71-14043	NASA-CASE-XLE-01124 US-PATENT-APPL-SN-312269 US-PATENT-CLASS-60-35.5 US-PATENT-3,238,715		
c28 N71-14044	NASA-CASE-IGS-08729 US-PATENT-APPL-SN-667637 US-PATENT-CLASS-60-200 US-PATENT-3,490,235		
c28 N71-14058	NASA-CASE-MSC-12139-1 US-PATENT-APPL-SN-797796 US-PATENT-CLASS-103-37 US-PATENT-3,492,947		
c27 N71-14090	NASA-CASE-LAR-10173-1 US-PATENT-APPL-SN-758942 US-PATENT-CLASS-149-19 US-PATENT-3,492,176		
c21 N71-14132	NASA-CASE-XLA-05464 US-PATENT-APPL-SN-656995 US-PATENT-CLASS-244-1 US-PATENT-3,493,194		
c21 N71-14159	NASA-CASE-YGS-04393 US-PATENT-APPL-SN-700142 US-PATENT-CLASS-244-1 US-PATENT-3,490,719		
c26 N71-14354	NASA-CASE-ERC-10138 US-PATENT-APPL-SN-821586 US-PATENT-CLASS-225-2 US-PATENT-3,493,155		
c15 N71-14932	NASA-CASE-LBW-11531 US-PATENT-APPL-SN-643332 US-PATENT-CLASS-219-72 US-PATENT-3,493,711		
c14 N71-14996	NASA-CASE-XLA-00936 US-PATENT-APPL-SN-282818 US-PATENT-CLASS-73-170 US-PATENT-3,238,774		
c23 N71-15467	NASA-CASE-XNP-03796 US-PATENT-APPL-SN-453231 US-PATENT-CLASS-62-6 US-PATENT-3,260,055		
c17 N71-15468	NASA-CASE-LBW-10393-1 US-PATENT-APPL-SN-644799 US-PATENT-CLASS-75-202 US-PATENT-3,535,110		
c18 N71-15469	NASA-CASE-ARC-10099-1 US-PATENT-APPL-SN-704224 US-PATENT-CLASS-106-15 US-PATENT-3,535,130		
c18 N71-15545	NASA-CASE-XMS-09691-1 US-PATENT-APPL-SN-738119 US-PATENT-CLASS-8-94.12 US-PATENT-3,526,473		
c16 N71-15550	NASA-CASE-XNP-05219 US-PATENT-APPL-SN-336103 US-PATENT-CLASS-330-4 US-PATENT-3,299,364		
c16 N71-15551	NASA-CASE-ERC-10019 US-PATENT-APPL-SN-677508 US-PATENT-CLASS-350-3.5 US-PATENT-3,535,013		
c25 N71-15562	NASA-CASE-XLA-03374 US-PATENT-APPL-SN-793770 US-PATENT-CLASS-315-111 US-PATENT-3,535,586		
c28 N71-15563	NASA-CASE-XLA-02865		
		c16 N71-15565	NASA-CASE-MPS-20074 US-PATENT-APPL-SN-801312 US-PATENT-CLASS-350-3.5 US-PATENT-3,535,014
		c31 N71-15566	NASA-CASE-XKS-08012-2 US-PATENT-APPL-SN-874958 US-PATENT-CLASS-340-172.5 US-PATENT-3,535,683
		c16 N71-15567	NASA-CASE-ERC-10017 US-PATENT-APPL-SN-677506 US-PATENT-CLASS-350-3.5 US-PATENT-3,535,012
		c33 N71-15568	NASA-CASE-XLE-09475-1 US-PATENT-APPL-SN-710945 US-PATENT-CLASS-136-228 US-PATENT-3,535,165
		c15 N71-15571	NASA-CASE-XLA-07911 US-PATENT-APPL-SN-660572 US-PATENT-CLASS-33-207 US-PATENT-3,492,739
		c21 N71-15582	NASA-CASE-XLA-01163 US-PATENT-APPL-SN-405632 US-PATENT-CLASS-60-35.55 US-PATENT-3,270,505
		c21 N71-15583	NASA-CASE-YMF-01598 US-PATENT-APPL-SN-333770 US-PATENT-CLASS-244-1 US-PATENT-3,270,985
		c15 N71-15597	NASA-CASE-XLE-08917 US-PATENT-APPL-SN-662829 US-PATENT-CLASS-113-116 US-PATENT-3,490,405
		c14 N71-15598	NASA-CASE-YAC-00812 US-PATENT-APPL-SN-255132 US-PATENT-CLASS-73-341 US-PATENT-3,238,777
		c14 N71-15599	NASA-CASE-XNP-04161 US-PATENT-APPL-SN-568356 US-PATENT-CLASS-250-83.3 US-PATENT-3,444,375
		c14 N71-15600	NASA-CASE-XKS-06250 US-PATENT-APPL-SN-649075 US-PATENT-CLASS-73-97 US-PATENT-3,492,862
		c14 N71-15604	NASA-CASE-NPO-10337 US-PATENT-APPL-SN-714296 US-PATENT-CLASS-350-58 US-PATENT-3,488,103
		c14 N71-15605	NASA-CASE-GSC-10062 US-PATENT-APPL-SN-658955 US-PATENT-CLASS-350-285 US-PATENT-3,493,294
		c15 N71-15606	NASA-CASE-XNP-06031 US-PATENT-APPL-SN-590144 US-PATENT-CLASS-250-52 US-PATENT-3,493,746
		c15 N71-15607	NASA-CASE-XNP-03287 US-PATENT-APPL-SN-658956 US-PATENT-CLASS-228-7 US-PATENT-3,443,732
		c15 N71-15608	NASA-CASE-NPO-10117 US-PATENT-APPL-SN-668238 US-PATENT-CLASS-138-42 US-PATENT-3,493,012
		c15 N71-15609	NASA-CASE-XNP-04709 US-PATENT-APPL-SN-683507 US-PATENT-CLASS-137-81.5 US-PATENT-3,493,003
		c15 N71-15610	NASA-CASE-XLE-01604-2 US-PATENT-APPL-SN-683613 US-PATENT-CLASS-117-50 US-PATENT-3,493,415
		c14 N71-15620	NASA-CASE-XLA-01926 US-PATENT-APPL-SN-784521 US-PATENT-CLASS-340-57 US-PATENT-3,491,335
		c14 N71-15621	NASA-CASE-XNP-09572 US-PATENT-APPL-SN-660841 US-PATENT-CLASS-35-10.2 US-PATENT-3,493,665
		c14 N71-15622	NASA-CASE-XNP-04111 US-PATENT-APPL-SN-560969 US-PATENT-CLASS-350-213 US-PATENT-3,493,291
		c33 N71-15623	NASA-CASE-XMS-01816 US-PATENT-APPL-SN-425364

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-60-35.6		US-PATENT-3,535,352
	US-PATENT-3,270,503	c31 N71-15689	NASA-CASE-NPS-14685
c33 N71-15625	NASA-CASE-XLE-01399		US-PATENT-APPL-SN-752947
	US-PATENT-APPL-SN-320233		US-PATENT-CLASS-180-118
	US-PATENT-CLASS-13-26		US-PATENT-CLASS-180-121
	US-PATENT-3,263,016		US-PATENT-3,534,826
c27 N71-15634	NASA-CASE-XLE-01988	c31 N71-15692	NASA-CASE-XLA-01339
	US-PATENT-APPL-SN-308918		US-PATENT-APPL-SN-373591
	US-PATENT-CLASS-60-35.6		US-PATENT-CLASS-102-49
	US-PATENT-3,258,912		US-PATENT-3,260,204
c27 N71-15635	NASA-CASE-XLE-01182	c15 N71-15871	NASA-CASE-XMP-02039
	US-PATENT-APPL-SN-411949		US-PATENT-APPL-SN-434143
	US-PATENT-CLASS-60-39.46		US-PATENT-CLASS-219-131
	US-PATENT-3,258,918		US-PATENT-3,274,558
c31 N71-15637	NASA-CASE-XLE-01640	c15 N71-15906	NASA-CASE-XNP-00920
	US-PATENT-APPL-SN-473535		US-PATENT-APPL-SN-329331
	US-PATENT-CLASS-60-35.6		US-PATENT-CLASS-62-2
	US-PATENT-3,270,504		US-PATENT-3,270,512
c33 N71-15641	NASA-CASE-XNP-09802	c07 N71-15907	NASA-CASE-XNP-01057
	US-PATENT-APPL-SN-673229		US-PATENT-APPL-SN-301683
	US-PATENT-CLASS-73-190		US-PATENT-CLASS-343-786
	US-PATENT-3,531,989		US-PATENT-3,305,870
c21 N71-15642	NASA CASE-XGS-03431	c08 N71-15908	NASA-CASE-XLA-02705
	US-PATENT-APPL-SN-588635		US-PATENT-APPL-SN-473537
	US-PATENT-CLASS-250-203		US-PATENT-CLASS-129-16.7
	US-PATENT-3,488,504		US-PATENT-3,310,054
c31 N71-15643	NASA-CASE-NPO-10311	c10 N71-15909	NASA-CASE-XAC-03777
	US-PATENT-APPL-SN-725475		US-PATENT-APPL-SN-484489
	US-PATENT-CLASS-73-116		US-PATENT-CLASS-200-6
	US-PATENT-3,534,597		US-PATENT-3,283,088
c17 N71-15644	NASA-CASE-XLE-00726	c10 N71-15910	NASA-CASE-XGS-00823
	US-PATENT-APPL-SN-355126		US-PATENT-APPL-SN-336607
	US-PATENT-CLASS-75-170		US-PATENT-CLASS-307-88.5
	US-PATENT-3,271,140		US-PATENT-3,283,175
c31 N71-15647	NASA-CASE-XGS-01143	c15 N71-15918	NASA-CASE-NMS-02383
	US-PATENT-APPL-SN-349781		US-PATENT-APPL-SN-299042
	US-PATENT-CLASS-60-35.6		US-PATENT-CLASS-140-123
	US-PATENT-3,270,501		US-PATENT-3,299,913
c25 N71-15650	NASA-CASE-XLE-00821	c15 N71-15922	NASA-CASE-XGS-01971
	US-PATENT-APPL-SN-228707		US-PATENT-APPL-SN-353645
	US-PATENT-CLASS-324-72		US-PATENT-CLASS-85-33
	US-PATENT-3,300,717		US-PATENT-3,262,351
c20 N71-15658	NASA-CASE-XLE-00409	c11 N71-15925	NASA-CASE-XLA-00378
	US-PATENT-APPL-SN-249539		US-PATENT-APPL-SN-266107
	US-PATENT-CLASS-29-157		US-PATENT-CLASS-219-10.49
	US-PATENT-3,254,395		US-PATENT-3,238,345
c28 N71-15659	NASA-CASE-XLE-05689	c11 N71-15926	NASA-CASE-XLA-00939
	US-PATENT-APPL-SN-491845		US-PATENT-APPL-SN-309354
	US-PATENT-CLASS-60-35.60		US-PATENT-CLASS-73-147
	US-PATENT-3,254,487		US-PATENT-3,276,251
c28 N71-15660	NASA-CASE-XMP-00968	c11 N71-15960	NASA-CASE-XAC-00731
	US-PATENT-APPL-SN-339825		US-PATENT-APPL-SN-232318
	US-PATENT-CLASS-60-35.6		US-PATENT-CLASS-220-89
	US-PATENT-3,270,499		US-PATENT-3,145,874
c28 N71-15661	NASA-CASE-XLE-02066	c14 N71-15962	NASA-CASE-XGS-01587
	US-PATENT-APPL-SN-426455		US-PATENT-APPL-SN-298799
	US-PATENT-CLASS-60-35.5		US-PATENT-CLASS-324-43
	US-PATENT-3,262,262		US-PATENT-3,258,687
c31 N71-15663	NASA-CASE-XLA-00256	c15 N71-15966	NASA-CASE-XLE-00953
	US-PATENT-APPL-SN-333766		US-PATENT-APPL-SN-336320
	US-PATENT-CLASS-244-1		US-PATENT-CLASS-22-200
	US-PATENT-3,262,655		US-PATENT-3,237,253
c31 N71-15664	NASA-CASE-XLA-01332	c15 N71-15967	NASA-CASE-XLE-00703
	US-PATENT-APPL-SN-250974		US-PATENT-APPL-SN-271822
	US-PATENT-CLASS-220-15		US-PATENT-CLASS-137-13
	US-PATENT-3,270,908		US-PATENT-3,270,756
c23 N71-15673	NASA-CASE-XMS-01620	c15 N71-15968	NASA-CASE-XLE-00586
	US-PATENT-APPL-SN-357340		US-PATENT-APPL-SN-317391
	US-PATENT-CLASS-248-358		US-PATENT-CLASS-55-160
	US-PATENT-3,243,154		US-PATENT-3,257,780
c31 N71-15674	NASA-CASE-XLA-03691	c14 N71-15969	NASA-CASE-XMP-01099
	US-PATENT-APPL-SN-667625		US-PATENT-APPL-SN-73367
	US-PATENT-CLASS-244-1		US-PATENT-CLASS-73-517
	US-PATENT-3,534,924		US-PATENT-3,261,210
c31 N71-15675	NASA-CASE-XMP-03169	c32 N71-15974	NASA-CASE-XMS-06782
	US-PATENT-APPL-SN-375405		US-PATENT-APPL-SN-691739
	US-PATENT-CLASS-89-1.5		US-PATENT-CLASS-338-5
	US-PATENT-3,262,365		US-PATENT-3,464,049
c31 N71-15676	NASA-CASE-XGS-05579	c23 N71-15978	NASA-CASE-XGS-00373
	US-PATENT-APPL-SN-719869		US-PATENT-APPL-SN-105518
	US-PATENT-CLASS-244-1		US-PATENT-CLASS-161-189
	US-PATENT-3,534,925		US-PATENT-3,276,946
c31 N71-15687	NASA-CASE-XLA-05369	c15 N71-15986	NASA-CASE-XMP-03498
	US-PATENT-APPL-SN-765123		US-PATENT-APPL-SN-396443
	US-PATENT-CLASS-102-49.5		US-PATENT-CLASS-29-155.55
	US-PATENT-3,534,686		US-PATENT-3,258,831
c18 N71-15688	NASA-CASE-XNP-03459-2	c30 N71-15990	NASA-CASE-XAC-08494
	US-PATENT-APPL-SN-681942		US-PATENT-APPL-SN-690998
	US-PATENT-CLASS-260-404.5		US-PATENT-CLASS-356-74

ACCESSION NUMBER INDEX

c14 N71-15992	US-PATENT-3,532,428 NASA-CASE-XGS-01052 US-PATENT-APPL-SN-314572 US-PATENT-CLASS-73-15 US-PATENT-3,242,716	c31 N71-16085	NASA-CASE-XLA-09881 US-PATENT-APPL-SN-710562 US-PATENT-CLASS-244-138 US-PATENT-3,520,503
c14 N71-16014	NASA-CASE-XLE-00820 US-PATENT-APPL-SN-228569 US-PATENT-CLASS-324-32 US-PATENT-3,283,241	c09 N71-16086	NASA-CASE-XLE-02038 US-PATENT-APPL-SN-349782 US-PATENT-CLASS-73-147 US-PATENT-3,273,388
c17 N71-16025	NASA-CASE-XLR-02991 US-PATENT-APPL-SN-375401 US-PATENT-CLASS-75-170 US-PATENT-3,276,865	c02 N71-16087	NASA-CASE-XAC-02058 US-PATENT-APPL-SN-342572 US-PATENT-CLASS-244-1 US-PATENT-3,276,722
c17 N71-16026	NASA-CASE-XLR-02082 US-PATENT-APPL-SN-360180 US-PATENT-CLASS-75-171 US-PATENT-3,276,866	c07 N71-16088	NASA-CASE-XGS-01022 US-PATENT-APPL-SN-331323 US-PATENT-CLASS-325-4 US-PATENT-3,277,373
c11 N71-16028	NASA-CASE-XLA-01787 US-PATENT-APPL-SN-304749 US-PATENT-CLASS-35-29 US-PATENT-3,270,441	c09 N71-16089	NASA-CASE-XAC-02405 US-PATENT-APPL-SN-433821 US-PATENT-CLASS-200-6 US-PATENT-3,271,532
c10 N71-16030	NASA-CASE-XMP-01096 US-PATENT-APPL-SN-307270 US-PATENT-CLASS-318-376 US-PATENT-3,271,649	c30 N71-16090	NASA-CASE-GSC-10083-1 US-PATENT-APPL-SN-641431 US-PATENT-CLASS-343-6 US-PATENT-3,471,856
c12 N71-16031	NASA-CASE-XMS-01445 US-PATENT-APPL-SN-385526 US-PATENT-CLASS-137-615 US-PATENT-3,308,848	c24 N71-16095	NASA-CASE-XAC-05506-1 US-PATENT-APPL-SN-701732 US-PATENT-CLASS-250-41.9 US-PATENT-3,532,880
c26 N71-16037	NASA-CASE-XGS-05718 US-PATENT-APPL-SN-584071 US-PATENT-CLASS-29-472.9 US-PATENT-3,452,423	c23 N71-16098	NASA-CASE-XAC-03107 US-PATENT-APPL-SN-538168 US-PATENT-CLASS-73-505 US-PATENT-3,455,171
c10 N71-16042	NASA-CASE-XAC-00942 US-PATENT-APPL-SN-310506 US-PATENT-CLASS-307-88.5 US-PATENT-3,277,314	c23 N71-16099	NASA-CASE-XGS-07514 US-PATENT-APPL-SN-640453 US-PATENT-CLASS-328-1 US-PATENT-3,509,469
c17 N71-16044	NASA-CASE-XGS-06306 US-PATENT-APPL-SN-685473 US-PATENT-CLASS-156-3 US-PATENT-3,532,568	c23 N71-16100	NASA-CASE-XGS-05715 US-PATENT-APPL-SN-668257 US-PATENT-CLASS-250-233 US-PATENT-3,532,894
c18 N71-16046	NASA-CASE-GSC-10007 US-PATENT-APPL-SN-627599 US-PATENT-CLASS-117-201 US-PATENT-3,532,538	c23 N71-16101	NASA-CASE-XMP-08883 US-PATENT-APPL-SN-617021 US-PATENT-CLASS-356-117 US-PATENT-3,520,617
c15 N71-16052	NASA-CASE-XLR-02999 US-PATENT-APPL-SN-431235 US-PATENT-CLASS-29-148.4 US-PATENT-3,262,186	c31 N71-16102	NASA-CASE-XGS-09190 US-PATENT-APPL-SN-647298 US-PATENT-CLASS-343-915 US-PATENT-3,521,290
c10 N71-16057	NASA-CASE-XMP-01193 US-PATENT-APPL-SN-366226 US-PATENT-CLASS-324-57 US-PATENT-3,277,366	c32 N71-16103	NASA-CASE-LAR-10317-1 US-PATENT-APPL-SN-739927 US-PATENT-CLASS-137-582 US-PATENT-3,508,578
c10 N71-16058	NASA-CASE-XMP-01097 US-PATENT-APPL-SN-290873 US-PATENT-CLASS-340-227 US-PATENT-3,277,458	c33 N71-16104	NASA-CASE-XLE-00785 US-PATENT-APPL-SN-666554 US-PATENT-CLASS-60-108 US-PATENT-3,508,402
c25 N71-16073	NASA-CASE-XAC-05695 US-PATENT-APPL-SN-634038 US-PATENT-CLASS-324-34 US-PATENT-3,517,302	c18 N71-16105	NASA-CASE-XLE-08511-2 US-PATENT-APPL-SN-711921 US-PATENT-CLASS-117-119 US-PATENT-3,508,955
c15 N71-16075	NASA-CASE-XLA-00284 US-PATENT-APPL-SN-240760 US-PATENT-CLASS-117-69 US-PATENT-3,264,135	c32 N71-16106	NASA-CASE-XLA-04605 US-PATENT-APPL-SN-619519 US-PATENT-CLASS-137-582 US-PATENT-3,443,584
c15 N71-16076	NASA-CASE-XLR-00106 US-PATENT-APPL-SN-629759 US-PATENT-CLASS-25-156 US-PATENT-2,944,316	c18 N71-16124	NASA-CASE-XMP-05279 US-PATENT-APPL-SN-617774 US-PATENT-CLASS-106-88 US-PATENT-3,508,940
c15 N71-16077	NASA-CASE-XLA-00302 US-PATENT-APPL-SN-284266 US-PATENT-CLASS-117-46 US-PATENT-3,271,181	c18 N71-16210	NASA-CASE-XMP-08837 US-PATENT-APPL-SN-691736 US-PATENT-CLASS-204-20 US-PATENT-3,526,580
c15 N71-16078	NASA-CASE-XGS-00824 US-PATENT-APPL-SN-379072 US-PATENT-CLASS-89-1 US-PATENT-3,309,961	c23 N71-16212	NASA-CASE-NPO-10250 US-PATENT-APPL-SN-736848 US-PATENT-CLASS-149-1 US-PATENT-3,516,879
c15 N71-16079	NASA-CASE-XLA-00415 US-PATENT-APPL-SN-314074 US-PATENT-CLASS-233-11 US-PATENT-3,276,679	c24 N71-16213	NASA-CASE-XGS-06628 US-PATENT-APPL-SN-665680 US-PATENT-CLASS-315-111 US-PATENT-3,509,419
c31 N71-16080	NASA-CASE-XSC-12049 US-PATENT-APPL-SN-693420 US-PATENT-CLASS-52-3 US-PATENT-3,465,482	c31 N71-16221	NASA-CASE-XLA-05906 US-PATENT-APPL-SN-777766 US-PATENT-CLASS-73-432 US-PATENT-3,526,139
c31 N71-16081	NASA-CASE-XGS-03351 US-PATENT-APPL-SN-472747 US-PATENT-CLASS-244-31 US-PATENT-3,276,726	c31 N71-16222	NASA-CASE-NFS-11133 US-PATENT-APPL-SN-693419 US-PATENT-CLASS-244-1 US-PATENT-3,508,723
		c27 N71-16223	NASA-CASE-NFS-12750

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-806149		US-PATENT-CLASS-137-81.5
	US-PATENT-CLASS-73-432		US-PATENT-3,520,317
	US-PATENT-3,526,140	c12 N71-17579	NASA-CASE-XLA-07391
c28 N71-16224	NASA-CASE-HFS-11497		US-PATENT-APPL-SN-726898
	US-PATENT-APPL-SN-730733		US-PATENT-CLASS-137-81.5
	US-PATENT-CLASS-239-265.43		US-PATENT-3,493,004
	US-PATENT-3,526,365	c14 N71-17584	NASA-CASE-XNP-09462
c33 N71-16277	NASA-CASE-XMS-04268		US-PATENT-APPL-SN-658957
	US-PATENT-APPL-SN-516160		US-PATENT-CLASS-73-57
	US-PATENT-CLASS-165-133		US-PATENT-3,500,677
	US-PATENT-3,502,141	c14 N71-17585	NASA-CASE-XGS-05680
c33 N71-16278	NASA-CASE-XNP-04237		US-PATENT-APPL-SN-656953
	US-PATENT-APPL-SN-539237		US-PATENT-CLASS-318-138
	US-PATENT-CLASS-219-364		US-PATENT-3,501,664
	US-PATENT-3,517,162	c14 N71-17586	NASA-CASE-XLA-08646
c20 N71-16281	NASA-CASE-XLA-02081		US-PATENT-APPL-SN-677476
	US-PATENT-APPL-SN-522795		US-PATENT-CLASS-73-105
	US-PATENT-CLASS-73-189		US-PATENT-3,534,596
	US-PATENT-3,507,150	c14 N71-17587	NASA-CASE-XNP-05844
c20 N71-16340	NASA-CASE-XNP-14032		US-PATENT-APPL-SN-706564
	US-PATENT-APPL-SN-679862		US-PATENT-CLASS-73-382
	US-PATENT-CLASS-250-209		US-PATENT-3,500,688
	US-PATENT-3,501,641	c14 N71-17588	NASA-CASE-HFS-12806
c23 N71-16341	NASA-CASE-XGS-05291		US-PATENT-APPL-SN-686933
	US-PATENT-APPL-SN-553891		US-PATENT-CLASS-55-179
	US-PATENT-CLASS-356-209		US-PATENT-3,490,205
	US-PATENT-3,504,983	c05 N71-17599	NASA-CASE-HSC-12206-1
c31 N71-16345	NASA-CASE-XNP-05344		US-PATENT-APPL-SN-856258
	US-PATENT-APPL-SN-702396		US-PATENT-CLASS-128-142.5
	US-PATENT-CLASS-244-1		US-PATENT-3,516,404
	US-PATENT-3,520,496	c11 N71-17600	NASA-CASE-HFS-12915
c31 N71-16346	NASA-CASE-XMS-03613		US-PATENT-APPL-SN-694340
	US-PATENT-APPL-SN-802816		US-PATENT-CLASS-220-89
	US-PATENT-CLASS-244-1		US-PATENT-3,469,734
	US-PATENT-3,526,372	c32 N71-17609	NASA-CASE-XLA-02332
c27 N71-16348	NASA-CASE-HSC-12280		US-PATENT-APPL-SN-388024
	US-PATENT-APPL-SN-372648		US-PATENT-CLASS-212-11
	US-PATENT-CLASS-250-43.5		US-PATENT-3,276,602
	US-PATENT-3,501,632	c33 N71-17610	NASA-CASE-XLA-00377
c23 N71-16355	NASA-CASE-XGS-05534		US-PATENT-APPL-SN-270118
	US-PATENT-APPL-SN-578925		US-PATENT-CLASS-230-162
	US-PATENT-CLASS-23-253		US-PATENT-3,309,012
	US-PATENT-3,520,660	c14 N71-17626	NASA-CASE-LAR-10274-1
c33 N71-16356	NASA-CASE-NPO-10158		US-PATENT-APPL-SN-717052
	US-PATENT-APPL-SN-730702		US-PATENT-CLASS-188-1
	US-PATENT-CLASS-73-343		US-PATENT-3,491,857
	US-PATENT-3,526,134	c14 N71-17627	NASA-CASE-XGS-03532
c33 N71-16357	NASA-CASE-NPO-10138		US-PATENT-APPL-SN-538913
	US-PATENT-APPL-SN-759457		US-PATENT-CLASS-356-106
	US-PATENT-CLASS-236-1		US-PATENT-3,488,123
	US-PATENT-3,526,359	c15 N71-17628	NASA-CASE-HFS-10340
c23 N71-16365	NASA-CASE-XNP-08840		US-PATENT-APPL-SN-716734
	US-PATENT-APPL-SN-649360		US-PATENT-CLASS-225-1
	US-PATENT-CLASS-356-36		US-PATENT-3,507,425
	US-PATENT-3,526,460	c31 N71-17629	NASA-CASE-XLE-03583
c27 N71-16392	NASA-CASE-XNP-09744		US-PATENT-APPL-SN-400617
	US-PATENT-APPL-SN-685750		US-PATENT-CLASS-244-3.22
	US-PATENT-CLASS-60-39.47		US-PATENT-3,276,376
	US-PATENT-3,507,114	c12 N71-17631	NASA-CASE-NPO-10122
c17 N71-16393	NASA-CASE-NPO-10271		US-PATENT-APPL-SN-710949
	US-PATENT-APPL-SN-763869		US-PATENT-CLASS-60-217
	US-PATENT-CLASS-21-207		US-PATENT-3,534,555
	US-PATENT-3,529,928	c32 N71-17645	NASA-CASE-XNP-01153
c32 N71-16428	NASA-CASE-XLA-03135		US-PATENT-APPL-SN-336608
	US-PATENT-APPL-SN-582171		US-PATENT-CLASS-73-88
	US-PATENT-CLASS-73-71.4		US-PATENT-3,273,381
	US-PATENT-3,503,251	c15 N71-17647	NASA-CASE-XNP-01667
c12 N71-16894	NASA-CASE-XLA-02079		US-PATENT-APPL-SN-577115
	US-PATENT-APPL-SN-435756		US-PATENT-CLASS-118-11
	US-PATENT-CLASS-188-87		US-PATENT-3,502,051
	US-PATENT-3,310,138	c15 N71-17648	NASA-CASE-HSC-12116-1
c12 N71-17569	NASA-CASE-HSC-12084-1		US-PATENT-APPL-SN-768336
	US-PATENT-APPL-SN-762438		US-PATENT-CLASS-251-358
	US-PATENT-CLASS-73-204		US-PATENT-3,508,739
	US-PATENT-3,500,686	c15 N71-17649	NASA-CASE-HFS-11132
c12 N71-17573	NASA-CASE-LAR-10323-1		US-PATENT-APPL-SN-744910
	US-PATENT-APPL-SN-738314		US-PATENT-CLASS-248-360
	US-PATENT-CLASS-73-45.5		US-PATENT-3,526,382
	US-PATENT-3,516,284	c15 N71-17650	NASA-CASE-XNP-05114
c14 N71-17574	NASA-CASE-XGS-04993		US-PATENT-APPL-SN-637882
	US-PATENT-APPL-SN-577775		US-PATENT-CLASS-29-517
	US-PATENT-CLASS-96-49		US-PATENT-3,507,034
	US-PATENT-3,458,313	c15 N71-17651	NASA-CASE-XLE-03803-2
c14 N71-17575	NASA-CASE-XNP-06531		US-PATENT-APPL-SN-669336
	US-PATENT-APPL-SN-732917		US-PATENT-CLASS-156-172
	US-PATENT-CLASS-204-195		US-PATENT-3,535,179
	US-PATENT-3,509,034	c15 N71-17652	NASA-CASE-XLE-05079
c12 N71-17578	NASA-CASE-HFS-10412		US-PATENT-APPL-SN-601228
	US-PATENT-APPL-SN-701635		US-PATENT-CLASS-310-93

ACCESSION NUMBER INDEX

c15 N71-17653	US-PATENT-3,493,797 NASA-CASE-ARC-10140-1 US-PATENT-APPL-SN-783379 US-PATENT-CLASS-24-211 US-PATENT-CLASS-85-3 US-PATENT-3,534,650	c31 N71-17729	US-PATENT-3,423,290 NASA-CASE-XAC-01591 US-PATENT-APPL-SN-385527 US-PATENT-CLASS-244-1 US-PATENT-3,282,532
c15 N71-17654	US-PATENT-3,534,650 NASA-CASE-KNP-09702 US-PATENT-APPL-SN-730734 US-PATENT-CLASS-239-416 US-PATENT-3,534,909	c31 N71-17730	NASA-CASE-KNP-01543 US-PATENT-APPL-SN-402365 US-PATENT-CLASS-102-49 US-PATENT-3,286,629
c14 N71-17655	NASA-CASE-NPO-10320 US-PATENT-APPL-SN-718689 US-PATENT-CLASS-356-106 US-PATENT-3,535,041	c30 N71-17788	NASA-CASE-XGS-00783 US-PATENT-APPL-SN-372438 US-PATENT-CLASS-73-432 US-PATENT-3,286,531
c14 N71-17656	NASA-CASE-HFS-12827 US-PATENT-APPL-SN-742816 US-PATENT-CLASS-73-88.5 US-PATENT-3,534,592	c23 N71-17802	NASA-CASE-XLE-00454 US-PATENT-APPL-SN-295855 US-PATENT-CLASS-73-295 US-PATENT-3,273,392
c14 N71-17657	NASA-CASE-KNP-09205 US-PATENT-APPL-SN-768473 US-PATENT-CLASS-33-149 US-PATENT-3,534,479	c15 N71-17803	NASA-CASE-XMS-05516 US-PATENT-APPL-SN-563648 US-PATENT-CLASS-264-92 US-PATENT-3,488,414
c14 N71-17658	NASA-CASE-KNP-04966 US-PATENT-APPL-SN-727480 US-PATENT-CLASS-33-174 US-PATENT-3,534,480	c15 N71-17805	NASA-CASE-HFS-12805 US-PATENT-APPL-SN-758082 US-PATENT-CLASS-81-63.1 US-PATENT-CLASS-192-43.1
c14 N71-17659	NASA-CASE-KNP-02964 US-PATENT-APPL-SN-493942 US-PATENT-CLASS-73-15.4 US-PATENT-3,465,569	c26 N71-17818	US-PATENT-3,534,836 NASA-CASE-KNP-01016 US-PATENT-APPL-SN-326299 US-PATENT-CLASS-264-27
c12 N71-17661	NASA-CASE-NPO-10298 US-PATENT-APPL-SN-745852 US-PATENT-CLASS-137-341 US-PATENT-3,534,765	c15 N71-17822	US-PATENT-3,274,304 NASA-CASE-ARC-10009-1 US-PATENT-APPL-SN-714595 US-PATENT-CLASS-324-58.5
c14 N71-17662	NASA-CASE-NPO-10300 US-PATENT-APPL-SN-718769 US-PATENT-CLASS-350-285 US-PATENT-3,535,024	c33 N71-17897	US-PATENT-3,532,973 NASA-CASE-XLA-00892 US-PATENT-APPL-SN-245941 US-PATENT-CLASS-62-467
c31 N71-17679	NASA-CASE-KNP-02507 US-PATENT-APPL-SN-475299 US-PATENT-CLASS-244-1 US-PATENT-3,310,256	c26 N71-18064	US-PATENT-3,273,355 NASA-CASE-KNP-01328 US-PATENT-APPL-SN-296879 US-PATENT-CLASS-317-234
c31 N71-17680	NASA-CASE-XLA-00117 US-PATENT-APPL-SN-835153 US-PATENT-CLASS-220-1 US-PATENT-2,996,212	c15 N71-18132	US-PATENT-3,271,637 NASA-CASE-HFS-13686 US-PATENT-APPL-SN-716183 US-PATENT-CLASS-73-67.2
c15 N71-17685	NASA-CASE-NPO-10034 US-PATENT-APPL-SN-668241 US-PATENT-CLASS-339-17 US-PATENT-3,464,051	c14 N71-18465	US-PATENT-3,531,982 NASA-CASE-NPO-10174 US-PATENT-APPL-SN-690163 US-PATENT-CLASS-95-11
c15 N71-17686	NASA-CASE-HFS-20586 US-PATENT-APPL-SN-688868 US-PATENT-CLASS-29-428 US-PATENT-3,526,030	c14 N71-18481	US-PATENT-3,520,238 NASA-CASE-XLA-02758 US-PATENT-APPL-SN-759665 US-PATENT-CLASS-73-4
c15 N71-17687	NASA-CASE-XLA-04143 US-PATENT-APPL-SN-628246 US-PATENT-CLASS-156-510 US-PATENT-3,508,999	c14 N71-18482	US-PATENT-3,531,978 NASA-CASE-XLA-07424 US-PATENT-APPL-SN-635326 US-PATENT-CLASS-313-7
c15 N71-17688	NASA-CASE-XLE-09527 US-PATENT-APPL-SN-686344 US-PATENT-CLASS-29-148.4 US-PATENT-3,500,525	c14 N71-18483	US-PATENT-3,466,484 NASA-CASE-XER-09519 US-PATENT-APPL-SN-676375 US-PATENT-CLASS-55-208
c31 N71-17691	NASA-CASE-XLA-00937 US-PATENT-APPL-SN-393461 US-PATENT-CLASS-244-3.14 US-PATENT-3,310,258	c11 N71-18578	US-PATENT-3,469,375 NASA-CASE-XAC-05902 US-PATENT-APPL-SN-662828 US-PATENT-CLASS-89-8
c15 N71-17692	NASA-CASE-HFS-14772 US-PATENT-APPL-SN-774151 US-PATENT-CLASS-74-63 US-PATENT-3,529,480	c15 N71-18579	US-PATENT-3,465,638 NASA-CASE-XGS-04175 US-PATENT-APPL-SN-606464 US-PATENT-CLASS-72-364
c15 N71-17693	NASA-CASE-NPO-10064 US-PATENT-APPL-SN-668755 US-PATENT-CLASS-244-1 US-PATENT-3,501,112	c15 N71-18580	US-PATENT-3,465,567 NASA-CASE-KNP-09698 US-PATENT-APPL-SN-698592 US-PATENT-CLASS-138-4
c15 N71-17694	NASA-CASE-KNP-08897 US-PATENT-APPL-SN-640450 US-PATENT-CLASS-318-22 US-PATENT-3,501,683	c08 N71-18594	US-PATENT-CLASS-251-118 US-PATENT-CLASS-251-121 US-PATENT-3,532,128 NASA-CASE-XAC-04031
c15 N71-17696	NASA-CASE-XLA-05100 US-PATENT-APPL-SN-724551 US-PATENT-CLASS-73-103 US-PATENT-3,487,680	c08 N71-18595	US-PATENT-APPL-SN-538905 US-PATENT-CLASS-340-347 US-PATENT-3,533,098 NASA-CASE-XGS-03303
c14 N71-17701	NASA-CASE-NPO-10144 US-PATENT-APPL-SN-688805 US-PATENT-CLASS-73-29 US-PATENT-3,534,585	c09 N71-18598	US-PATENT-APPL-SN-681693 US-PATENT-CLASS-343-13 US-PATENT-3,447,155
c06 N71-17705	NASA-CASE-XGS-05532 US-PATENT-APPL-SN-570093 US-PATENT-CLASS-195-99		

ACCESSION NUMBER INDEX

c09 N71-18599	NASA-CASE-LAR-10372 US-PATENT-APPL-SN-730162 US-PATENT-CLASS-102-70.2 US-PATENT-3,500,747	c08 N71-18751	NASA-CASE-XLA-07732 US-PATENT-APPL-SN-641441 US-PATENT-CLASS-307-216 US-PATENT-3,512,009
c09 N71-18600	NASA-CASE-NSC-12168-1 US-PATENT-APPL-SN-640154 US-PATENT-CLASS-312-296 US-PATENT-3,447,850	c08 N71-18752	NASA-CASE-XMP-00663 US-PATENT-APPL-SN-205470 US-PATENT-CLASS-321-5 US-PATENT-3,521,143
c08 N71-18602	NASA-CASE-XGS-04766 US-PATENT-APPL-SN-598120 US-PATENT-CLASS-235-175 US-PATENT-3,532,866	c10 N71-18772	NASA-CASE-GSC-10366-1 US-PATENT-APPL-SN-771523 US-PATENT-CLASS-318-138 US-PATENT-3,532,948
c12 N71-18603	NASA-CASE-ERC-10031 US-PATENT-APPL-SN-741461 US-PATENT-CLASS-40-28 US-PATENT-3,516,185	c11 N71-18773	NASA-CASE-XMP-07488 US-PATENT-APPL-SN-707495 US-PATENT-CLASS-35-12 US-PATENT-3,534,485
c31 N71-18611	NASA-CASE-MPS-20400 US-PATENT-APPL-SN-551694 US-PATENT-CLASS-152-11 US-PATENT-3,493,027	c09 N71-18830	NASA-CASE-XAC-10768 US-PATENT-APPL-SN-711970 US-PATENT-CLASS-250-83 US-PATENT-3,508,053
c15 N71-18613	NASA-CASE-XNP-02588 US-PATENT-APPL-SN-563644 US-PATENT-CLASS-219-91 US-PATENT-3,466,418	c09 N71-18843	NASA-CASE-XNP-03263 US-PATENT-APPL-SN-506908 US-PATENT-CLASS-340-146.1 US-PATENT-3,501,743
c16 N71-18614	NASA-CASE-XGS-03644 US-PATENT-APPL-SN-505320 US-PATENT-CLASS-331-94.5 US-PATENT-3,517,328	c21 N71-19212	NASA-CASE-MPS-20386 US-PATENT-APPL-SN-818349 US-PATENT-CLASS-356-28 US-PATENT-3,532,427
c12 N71-18615	NASA-CASE-XNP-09704 US-PATENT-APPL-SN-730701 US-PATENT-CLASS-137-594 US-PATENT-CLASS-138-46 US-PATENT-CLASS-251-61.1 US-PATENT-CLASS-251-127 US-PATENT-CLASS-251-333 US-PATENT-CLASS-251-342 US-PATENT-3,532,118	c15 N71-19213	NASA-CASE-MPS-14259 US-PATENT-APPL-SN-787410 US-PATENT-CLASS-138-43 US-PATENT-3,536,103
c15 N71-18616	NASA-CASE-XLA-07390 US-PATENT-APPL-SN-665681 US-PATENT-CLASS-72-53 US-PATENT-3,531,964	c15 N71-19214	NASA-CASE-MPS-20410 US-PATENT-APPL-SN-819599 US-PATENT-CLASS-244-1 US-PATENT-3,534,926
c14 N71-18625	NASA-CASE-NPO-10175 US-PATENT-APPL-SN-685787 US-PATENT-CLASS-137-505.12 US-PATENT-3,443,583	c02 N71-19287	NASA-CASE-GSC-10087-1 US-PATENT-APPL-SN-701679 US-PATENT-CLASS-343-112 US-PATENT-3,534,367
c08 N71-18692	NASA-CASE-MPS-14322 US-PATENT-APPL-SN-646934 US-PATENT-CLASS-328-134 US-PATENT-3,501,701	c08 N71-19288	NASA-CASE-NPO-10068 US-PATENT-APPL-SN-668969 US-PATENT-CLASS-340-172.5 US-PATENT-3,501,750
c08 N71-18693	NASA-CASE-XGS-04765 US-PATENT-APPL-SN-577545 US-PATENT-CLASS-235-156 US-PATENT-3,508,036	c10 N71-19417	NASA-CASE-XMS-10984-1 US-PATENT-APPL-SN-605095 US-PATENT-CLASS-340-213.1 US-PATENT-3,533,093
c08 N71-18694	NASA-CASE-NPO-10201 US-PATENT-APPL-SN-691738 US-PATENT-CLASS-340-174 US-PATENT-3,509,551	c10 N71-19418	NASA-CASE-GSC-10041-1 US-PATENT-APPL-SN-684209 US-PATENT-CLASS-331-113 US-PATENT-3,458,833
c03 N71-18698	NASA-CASE-NPO-10373 US-PATENT-APPL-SN-718752 US-PATENT-CLASS-136-89 US-PATENT-3,507,706	c08 N71-19420	NASA-CASE-XNP-09453 US-PATENT-APPL-SN-640448 US-PATENT-CLASS-226-190 US-PATENT-3,507,436
c14 N71-18699	NASA-CASE-XLA-03273 US-PATENT-APPL-SN-487352 US-PATENT-CLASS-250-83.3 US-PATENT-3,458,702	c10 N71-19421	NASA-CASE-XLA-08493 US-PATENT-APPL-SN-749148 US-PATENT-CLASS-324-72 US-PATENT-3,532,975
c15 N71-18701	NASA-CASE-XMP-07587 US-PATENT-APPL-SN-649359 US-PATENT-CLASS-317-122 US-PATENT-3,448,346	c14 N71-19431	NASA-CASE-XGS-02439 US-PATENT-APPL-SN-487341 US-PATENT-CLASS-324-120 US-PATENT-3,422,352
c09 N71-18720	NASA-CASE-NSC-12101 US-PATENT-APPL-SN-763705 US-PATENT-CLASS-343-718 US-PATENT-3,509,570	c08 N71-19432	NASA-CASE-XGS-02440 US-PATENT-APPL-SN-655677 US-PATENT-CLASS-328-42 US-PATENT-3,517,318
c09 N71-18721	NASA-CASE-XER-07894 US-PATENT-APPL-SN-644444 US-PATENT-CLASS-331-107 US-PATENT-3,509,491	c07 N71-19433	NASA-CASE-MPS-13046 US-PATENT-APPL-SN-673228 US-PATENT-CLASS-178-6 US-PATENT-3,532,807
c10 N71-18722	NASA-CASE-ERC-10046 US-PATENT-APPL-SN-793772 US-PATENT-CLASS-343-100 US-PATENT-3,501,764	c08 N71-19435	NASA-CASE-XGS-02612 US-PATENT-APPL-SN-502743 US-PATENT-CLASS-340-347 US-PATENT-3,509,558
c10 N71-18723	NASA-CASE-XNP-09450 US-PATENT-APPL-SN-640459 US-PATENT-CLASS-307-273 US-PATENT-3,501,649	c07 N71-19436	NASA-CASE-XMP-09422 US-PATENT-APPL-SN-783378 US-PATENT-CLASS-174-35 US-PATENT-3,517,109
c10 N71-18724	NASA-CASE-XLA-09371 US-PATENT-APPL-SN-568160 US-PATENT-CLASS-318-257 US-PATENT-3,504,258	c08 N71-19437	NASA-CASE-XGS-04768 US-PATENT-APPL-SN-598119 US-PATENT-CLASS-235-158 US-PATENT-3,508,039
		c03 N71-19438	NASA-CASE-XGS-05432 US-PATENT-APPL-SN-549860 US-PATENT-CLASS-320-23 US-PATENT-3,426,263
		c05 N71-19439	NASA-CASE-XMS-09571

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-678700		US-PATENT-CLASS-137-582
	US-PATENT-CLASS-165-46		US-PATENT-3,426,791
	US-PATENT-3,425,487	c15 1971-19570	NASA-CASE-XLE-05130-2
c05 1971-19440	NASA-CASE-XMS-01177		US-PATENT-APPL-SN-700586
	US-PATENT-APPL-SN-516150		US-PATENT-CLASS-277-25
	US-PATENT-CLASS-250-83		US-PATENT-3,466,052
	US-PATENT-3,427,454	c09 1971-19610	NASA-CASE-NPO-10037
c09 1971-19449	NASA-CASE-XPR-03107		US-PATENT-APPL-SN-700987
	US-PATENT-APPL-SN-507257		US-PATENT-CLASS-200-152
	US-PATENT-CLASS-178-6		US-PATENT-3,470,342
	US-PATENT-3,458,651	c08 1971-19687	NASA-CASE-XNP-04780
c09 1971-19466	NASA-CASE-XGS-02812		US-PATENT-APPL-SN-455477
	US-PATENT-APPL-SN-502750		US-PATENT-CLASS-340-347
	US-PATENT-CLASS-330-30		US-PATENT-3,430,227
	US-PATENT-3,466,560	c08 1971-19763	NASA-CASE-XAC-06302
c10 1971-19467	NASA-CASE-XNP-08665		US-PATENT-APPL-SN-574284
	US-PATENT-APPL-SN-582609		US-PATENT-CLASS-325-60
	US-PATENT-CLASS-325-63		US-PATENT-3,456,193
	US-PATENT-3,470,475	c07 1971-19773	NASA-CASE-GSC-10373-1
c10 1971-19468	NASA-CASE-XMS-05605-1		US-PATENT-APPL-SN-712658
	US-PATENT-APPL-SN-764812		US-PATENT-CLASS-325-4
	US-PATENT-CLASS-178-69.5		US-PATENT-3,532,985
	US-PATENT-3,532,819	c07 1971-19854	NASA-CASE-GSC-10553-1
c10 1971-19469	NASA-CASE-XNP-00777		US-PATENT-APPL-SN-820963
	US-PATENT-APPL-SN-486573		US-PATENT-CLASS-343-100
	US-PATENT-CLASS-329-122		US-PATENT-3,534,365
	US-PATENT-3,517,268	c05 1971-20268	NASA-CASE-XLA-02898
c09 1971-19470	NASA-CASE-XGS-05289		US-PATENT-APPL-SN-429932
	US-PATENT-APPL-SN-632104		US-PATENT-CLASS-128-1
	US-PATENT-CLASS-331-113		US-PATENT-3,461,855
	US-PATENT-3,470,496	c03 1971-20273	NASA-CASE-NPO-10188
c10 1971-19471	NASA-CASE-XLE-03804		US-PATENT-APPL-SN-681687
	US-PATENT-APPL-SN-526631		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-307-235		US-PATENT-3,473,758
	US-PATENT-3,463,939	c28 1971-20330	NASA-CASE-XLE-103477-1
c10 1971-19472	NASA-CASE-XAC-04030		US-PATENT-APPL-SN-466390
	US-PATENT-APPL-SN-520839		US-PATENT-CLASS-60-39.36
	US-PATENT-CLASS-328-1		US-PATENT-3,433,015
	US-PATENT-3,464,016	c15 1971-20393	NASA-CASE-HFS-06074
c09 1971-19479	NASA-CASE-XMS-04300		US-PATENT-APPL-SN-688743
	US-PATENT-APPL-SN-516158		US-PATENT-CLASS-228-9
	US-PATENT-CLASS-350-275		US-PATENT-3,458,104
	US-PATENT-3,427,093	c15 1971-20395	NASA-CASE-XNP-06065
c09 1971-19480	NASA-CASE-XPR-05637		US-PATENT-APPL-SN-665679
	US-PATENT-APPL-SN-484855		US-PATENT-CLASS-219-275
	US-PATENT-CLASS-235-194		US-PATENT-3,466,424
	US-PATENT-3,423,579	c31 1971-20396	NASA-CASE-XNP-08523
c15 1971-19485	NASA-CASE-HSC-11010		US-PATENT-APPL-SN-645563
	US-PATENT-APPL-SN-605090		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-251-31		US-PATENT-3,465,986
	US-PATENT-3,447,774	c16 1971-20400	NASA-CASE-HFS-11279
c15 1971-19486	NASA-CASE-XNP-08522		US-PATENT-APPL-SN-628094
	US-PATENT-APPL-SN-640447		US-PATENT-CLASS-219-121
	US-PATENT-CLASS-219-121		US-PATENT-3,472,998
	US-PATENT-3,474,220	c03 1971-20407	NASA-CASE-NPO-10194
c15 1971-19489	NASA-CASE-XNP-04680		US-PATENT-APPL-SN-668249
	US-PATENT-APPL-SN-634040		US-PATENT-CLASS-136-182
	US-PATENT-CLASS-33-147		US-PATENT-3,460,995
	US-PATENT-3,425,131	c14 1971-20427	NASA-CASE-XMS-13052
c07 1971-19493	NASA-CASE-XKS-08485		US-PATENT-APPL-SN-561223
	US-PATENT-APPL-SN-649078		US-PATENT-CLASS-62-268
	US-PATENT-CLASS-343-873		US-PATENT-3,455,121
	US-PATENT-3,509,578	c14 1971-20428	NASA-CASE-XGS-04879
c11 1971-19494	NASA-CASE-HFS-10555		US-PATENT-APPL-SN-541399
	US-PATENT-APPL-SN-700984		US-PATENT-CLASS-324-.5
	US-PATENT-CLASS-35-12		US-PATENT-3,443,208
	US-PATENT-3,516,179	c14 1971-20429	NASA-CASE-XLE-05260
c09 1971-19516	NASA-CASE-XNP-06937		US-PATENT-APPL-SN-674355
	US-PATENT-APPL-SN-640449		US-PATENT-CLASS-73-117.4
	US-PATENT-CLASS-330-30		US-PATENT-3,463,001
	US-PATENT-3,501,712	c14 1971-20430	NASA-CASE-XLA-03645
c08 1971-19544	NASA-CASE-XGS-01230		US-PATENT-APPL-SN-600266
	US-PATENT-APPL-SN-356488		US-PATENT-CLASS-250-83
	US-PATENT-CLASS-340-347		US-PATENT-3,450,878
	US-PATENT-3,474,441	c14 1971-20435	NASA-CASE-XMS-06767-1
c03 1971-19545	NASA-CASE-NPO-10821		US-PATENT-APPL-SN-716795
	US-PATENT-APPL-SN-670814		US-PATENT-CLASS-73-422
	US-PATENT-CLASS-136-89		US-PATENT-3,438,263
	US-PATENT-3,466,198	c12 1971-20436	NASA-CASE-LAR-11138
c10 1971-19547	NASA-CASE-XGS-03058		US-PATENT-APPL-SN-694317
	US-PATENT-APPL-SN-568987		US-PATENT-CLASS-73-147
	US-PATENT-CLASS-307-289		US-PATENT-3,461,721
	US-PATENT-3,517,221	c14 1971-20439	NASA-CASE-XAC-04886-1
c14 1971-19568	NASA-CASE-HSC-10966		US-PATENT-APPL-SN-574290
	US-PATENT-APPL-SN-665676		US-PATENT-CLASS-73-142
	US-PATENT-CLASS-250-203		US-PATENT-3,425,272
	US-PATENT-3,421,004	c15 1971-20440	NASA-CASE-XNP-09770
c15 1971-19569	NASA-CASE-XLA-05749		US-PATENT-APPL-SN-700120
	US-PATENT-APPL-SN-621714		US-PATENT-CLASS-209-10

ACCESSION NUMBER INDEX

c15 N71-20441 US-PATENT-3,472,372
 NASA-CASE-XMS-06329-1
 US-PATENT-APPL-SN-688742
 US-PATENT-CLASS-73-141
 US-PATENT-3,472,069
 c14 N71-20442 NASA-CASE-XMS-11537
 US-PATENT-APPL-SN-636878
 US-PATENT-CLASS-23-254
 US-PATENT-3,472,629
 c15 N71-20443 NASA-CASE-XMS-07369
 US-PATENT-APPL-SN-640462
 US-PATENT-CLASS-29-492
 US-PATENT-3,473,216
 c09 N71-20445 NASA-CASE-XNP-09775
 US-PATENT-APPL-SN-668247
 US-PATENT-CLASS-333-96
 US-PATENT-3,474,357
 c09 N71-20446 NASA-CASE-XLR-04250
 US-PATENT-APPL-SN-621098
 US-PATENT-CLASS-310-54
 US-PATENT-3,447,003
 c09 N71-20447 NASA-CASE-XLA-02850
 US-PATENT-APPL-SN-556784
 US-PATENT-CLASS-307-267
 US-PATENT-3,473,050
 c10 N71-20448 NASA-CASE-XNP-03744
 US-PATENT-APPL-SN-547677
 US-PATENT-CLASS-318-314
 US-PATENT-3,424,966
 c14 N71-20461 NASA-CASE-XNP-09763
 US-PATENT-APPL-SN-600682
 US-PATENT-CLASS-117-6
 US-PATENT-3,433,662
 c03 N71-20491 NASA-CASE-XGS-05434
 US-PATENT-APPL-SN-667636
 US-PATENT-CLASS-136-182
 US-PATENT-3,463,673
 c03 N71-20492 NASA-CASE-XLE-04787
 US-PATENT-APPL-SN-551846
 US-PATENT-CLASS-136-89
 US-PATENT-3,434,885
 c24 N71-20518 NASA-CASE-XNP-02592
 US-PATENT-APPL-SN-484490
 US-PATENT-CLASS-324-33
 US-PATENT-3,430,131
 c25 N71-20563 NASA-CASE-XLA-06232
 US-PATENT-APPL-SN-612740
 US-PATENT-CLASS-324-58.5
 US-PATENT-3,473,116
 c09 N71-20569 NASA-CASE-XMS-08589-1
 US-PATENT-APPL-SN-544899
 US-PATENT-CLASS-324-57
 US-PATENT-3,434,050
 c02 N71-20570 NASA-CASE-XAC-08972
 US-PATENT-APPL-SN-700174
 US-PATENT-CLASS-244-76
 US-PATENT-3,472,470
 c08 N71-20571 NASA-CASE-XGS-04987
 US-PATENT-APPL-SN-619908
 US-PATENT-CLASS-315-24
 US-PATENT-3,437,874
 c09 N71-20658 NASA-CASE-XMS-03454
 US-PATENT-APPL-SN-425363
 US-PATENT-CLASS-343-915
 US-PATENT-3,360,798
 c09 N71-20705 NASA-CASE-XNP-01599
 US-PATENT-APPL-SN-381940
 US-PATENT-CLASS-117-212
 US-PATENT-3,359,132
 c06 N71-20717 NASA-CASE-XNP-04133
 US-PATENT-APPL-SN-554949
 US-PATENT-CLASS-260-2
 US-PATENT-3,354,098
 c05 N71-20718 NASA-CASE-XMS-04625
 US-PATENT-APPL-SN-519161
 US-PATENT-CLASS-244-122
 US-PATENT-3,356,320
 c15 N71-20739 NASA-CASE-XGS-02011
 US-PATENT-APPL-SN-502693
 US-PATENT-CLASS-308-9
 US-PATENT-3,359,046
 c15 N71-20740 NASA-CASE-XLA-01808
 US-PATENT-APPL-SN-517159
 US-PATENT-CLASS-74-471
 US-PATENT-3,364,777
 c14 N71-20741 NASA-CASE-XMS-01618
 US-PATENT-APPL-SN-418362
 US-PATENT-CLASS-73-29
 US-PATENT-3,360,980

c18 N71-20742 NASA-CASE-XMS-02952
 US-PATENT-APPL-SN-519160
 US-PATENT-CLASS-55-158
 US-PATENT-3,355,861
 c17 N71-20743 NASA-CASE-XNP-02786
 US-PATENT-APPL-SN-466873
 US-PATENT-CLASS-75-142
 US-PATENT-3,347,665
 c25 N71-20747 NASA-CASE-XLE-02578
 US-PATENT-APPL-SN-469012
 US-PATENT-CLASS-313-271
 US-PATENT-3,356,885
 c10 N71-20782 NASA-CASE-XGS-01784
 US-PATENT-APPL-SN-396444
 US-PATENT-CLASS-250-206
 US-PATENT-3,348,053
 c07 N71-20791 NASA-CASE-XNP-05254
 US-PATENT-APPL-SN-472372
 US-PATENT-CLASS-325-31
 US-PATENT-3,350,643
 c15 N71-20813 NASA-CASE-XMS-02184
 US-PATENT-APPL-SN-608247
 US-PATENT-CLASS-248-27
 US-PATENT-3,361,400
 c07 N71-20814 NASA-CASE-XNP-01306
 US-PATENT-APPL-SN-343426
 US-PATENT-CLASS-179-15
 US-PATENT-3,364,311
 c12 N71-20815 NASA-CASE-XNP-01779
 US-PATENT-APPL-SN-521999
 US-PATENT-CLASS-346-1
 US-PATENT-3,357,024
 c09 N71-20816 NASA-CASE-XAC-01677
 US-PATENT-APPL-SN-596338
 US-PATENT-CLASS-73-147
 US-PATENT-3,360,988
 c33 N71-20834 NASA-CASE-XMS-02009
 US-PATENT-APPL-SN-455352
 US-PATENT-CLASS-141-5
 US-PATENT-3,349,814
 c10 N71-20841 NASA-CASE-XGS-01222
 US-PATENT-APPL-SN-354182
 US-PATENT-CLASS-325-305
 US-PATENT-3,348,152
 c09 N71-20842 NASA-CASE-XNP-05381
 US-PATENT-APPL-SN-568352
 US-PATENT-CLASS-338-82
 US-PATENT-3,350,671
 c09 N71-20851 NASA-CASE-XNP-04732
 US-PATENT-APPL-SN-557584
 US-PATENT-CLASS-339-177
 US-PATENT-3,358,264
 c10 N71-20852 NASA-CASE-XGS-03502
 US-PATENT-APPL-SN-584066
 US-PATENT-CLASS-331-17
 US-PATENT-3,361,985
 c09 N71-20864 NASA-CASE-XGS-03501
 US-PATENT-APPL-SN-576521
 US-PATENT-CLASS-343-16
 US-PATENT-3,359,555
 c03 N71-20895 NASA-CASE-XNP-00826
 US-PATENT-APPL-SN-327163
 US-PATENT-CLASS-136-89
 US-PATENT-3,346,419
 c12 N71-20896 NASA-CASE-XNP-02251
 US-PATENT-APPL-SN-432030
 US-PATENT-CLASS-321-48
 US-PATENT-3,337,790
 c03 N71-20904 NASA-CASE-XLE-01645
 US-PATENT-APPL-SN-342574
 US-PATENT-CLASS-136-86
 US-PATENT-3,357,862
 c06 N71-20905 NASA-CASE-XNP-02584
 US-PATENT-APPL-SN-506135
 US-PATENT-CLASS-260-2
 US-PATENT-3,346,515
 c17 N71-20941 NASA-CASE-XMS-00370
 US-PATENT-APPL-SN-71366
 US-PATENT-CLASS-106-55
 US-PATENT-3,350,214
 c28 N71-20942 NASA-CASE-XNP-04389
 US-PATENT-APPL-SN-523511
 US-PATENT-CLASS-60-265
 US-PATENT-3,353,359
 c14 N71-21006 NASA-CASE-XLA-01832
 US-PATENT-APPL-SN-517858
 US-PATENT-CLASS-346-50
 US-PATENT-3,354,462
 c14 N71-21007 NASA-CASE-XMS-06236

ACCESSION NUMBER INDEX

c14 N71-21040 US-PATENT-APPL-SN-482670
 US-PATENT-CLASS-73-290
 US-PATENT-3,355,948
 NASA-CASE-XMS-03478
 c08 N71-21042 US-PATENT-APPL-SN-422100
 US-PATENT-CLASS-250-207
 US-PATENT-3,358,145
 NASA-CASP-XGS-01021
 US-PATENT-APPL-SN-279646
 c32 N71-21045 US-PATENT-CLASS-340-174.1
 US-PATENT-3,327,298
 NASA-CASE-XLA-01731
 US-PATENT-APPL-SN-425365
 c15 N71-21060 US-PATENT-CLASS-52-2
 US-PATENT-3,364,631
 NASA-CASE-XLA-03660
 US-PATENT-APPL-SN-482307
 c31 N71-21064 US-PATENT-CLASS-95-53
 US-PATENT-3,361,045
 NASA-CASE-XGS-02554
 US-PATENT-APPL-SN-504266
 c18 N71-21068 US-PATENT-CLASS-244-1
 US-PATENT-3,350,034
 NASA-CASE-XNP-02888
 US-PATENT-APPL-SN-409126
 c14 N71-21072 US-PATENT-CLASS-239-265.11
 US-PATENT-3,347,465
 NASA-CASE-XAC-02981
 c15 N71-21076 US-PATENT-APPL-SN-464879
 US-PATENT-CLASS-73-398
 US-PATENT-3,352,157
 NASA-CASE-XMS-03745
 c15 N71-21078 US-PATENT-APPL-SN-534295
 US-PATENT-CLASS-24-263
 US-PATENT-3,346,929
 NASA-CASE-XNP-03459
 c14 N71-21079 US-PATENT-APPL-SN-457879
 US-PATENT-CLASS-29-495
 US-PATENT-3,357,093
 c14 N71-21082 NASA-CASE-XLA-03102
 US-PATENT-APPL-SN-576195
 US-PATENT-CLASS-33-31
 US-PATENT-3,364,578
 NASA-CASE-XGS-02629
 c14 N71-21088 US-PATENT-APPL-SN-500435
 US-PATENT-CLASS-244-1
 US-PATENT-3,350,033
 NASA-CASE-XNP-06957
 c12 N71-21089 US-PATENT-APPL-SN-406097
 US-PATENT-CLASS-250-83.3
 US-PATENT-3,348,048
 NASA-CASE-XMS-01905
 c14 N71-21090 US-PATENT-APPL-SN-280580
 US-PATENT-CLASS-141-91
 US-PATENT-3,331,404
 NASA-CASE-XLE-00787
 c14 N71-21091 US-PATENT-APPL-SN-330210
 US-PATENT-CLASS-324-33
 US-PATENT-3,346,806
 NASA-CASE-XNP-02983
 c15 N71-21177 US-PATENT-APPL-SN-407599
 US-PATENT-CLASS-73-88.5
 US-PATENT-3,350,926
 NASA-CASE-XAC-06956
 c15 N71-21179 US-PATENT-APPL-SN-538166
 US-PATENT-CLASS-259-71
 US-PATENT-3,347,531
 NASA-CASE-XLA-01401
 c15 N71-21234 US-PATENT-APPL-SN-382976
 US-PATENT-CLASS-235-61.6
 US-PATENT-3,346,724
 NASA-CASP-XKS-02582
 c15 N71-21311 US-PATENT-APPL-SN-424153
 US-PATENT-CLASS-251-172
 US-PATENT-3,327,991
 NASA-CASE-XNP-03637
 c15 N71-21403 US-PATENT-APPL-SN-453232
 US-PATENT-CLASS-310-9.1
 US-PATENT-3,359,435
 NASA-CASE-XNP-03988
 c15 N71-21404 US-PATENT-APPL-SN-578923
 US-PATENT-CLASS-252-26
 US-PATENT-3,361,666
 NASA-CASE-XLA-01262
 c09 N71-21449 US-PATENT-APPL-SN-386800
 US-PATENT-CLASS-156-3
 US-PATENT-3,356,549
 NASA-CASE-XMS-01991
 US-PATENT-APPL-SN-410326

c10 N71-21473 US-PATENT-CLASS-323-22
 US-PATENT-3,344,340
 NASA-CASE-XGS-08679
 c11 N71-21474 US-PATENT-APPL-SN-312443
 US-PATENT-CLASS-343-113
 US-PATENT-3,340,532
 NASA-CASE-XMS-04798
 c11 N71-21475 US-PATENT-APPL-SN-480210
 US-PATENT-CLASS-35-12
 US-PATENT-3,330,052
 NASA-CASE-XLA-05378
 c07 N71-21476 US-PATENT-APPL-SN-484156
 US-PATENT-CLASS-73-343
 US-PATENT-3,331,246
 NASA-CASE-XNP-00746
 c11 N71-21481 US-PATENT-APPL-SN-271824
 US-PATENT-CLASS-235-181
 US-PATENT-3,359,409
 NASA-CASE-XLA-01326
 c10 N71-21483 US-PATENT-APPL-SN-422097
 US-PATENT-CLASS-73-147
 US-PATENT-3,345,866
 NASA-CASE-XGS-01155
 c15 N71-21489 US-PATENT-APPL-SN-557871
 US-PATENT-CLASS-343-16
 US-PATENT-3,344,425
 NASA-CASE-XNP-06914
 c28 N71-21493 US-PATENT-APPL-SN-590147
 US-PATENT-CLASS-85-33
 US-PATENT-3,352,192
 NASA-CASE-XLA-10450
 c33 N71-21507 US-PATENT-APPL-SN-594587
 US-PATENT-CLASS-239-265.19
 US-PATENT-3,347,466
 NASA-CASE-XLE-04603
 c15 N71-21528 US-PATENT-APPL-SN-638194
 US-PATENT-CLASS-60-243
 US-PATENT-3,347,046
 NASA-CASE-XLA-01446
 c15 N71-21529 US-PATENT-APPL-SN-400613
 US-PATENT-CLASS-53-102
 US-PATENT-3,336,725
 NASA-CASE-XGS-02422
 c15 N71-21530 US-PATENT-APPL-SN-493943
 US-PATENT-CLASS-74-126
 US-PATENT-3,331,255
 NASA-CASE-XMS-03722
 c15 N71-21531 US-PATENT-APPL-SN-487934
 US-PATENT-CLASS-267-64
 US-PATENT-3,330,549
 NASA-CASE-XNP-02341
 c15 N71-21536 US-PATENT-APPL-SN-432025
 US-PATENT-CLASS-52-127
 US-PATENT-3,330,082
 NASA-CASE-XMS-06876
 c09 N71-21583 US-PATENT-APPL-SN-605100
 US-PATENT-CLASS-72-34
 US-PATENT-3,345,840
 NASA-CASE-XLE-02008
 c33 N71-21586 US-PATENT-APPL-SN-487342
 US-PATENT-CLASS-338-64
 US-PATENT-3,329,918
 NASA-CASE-XLA-01794
 c18 N71-21651 US-PATENT-APPL-SN-464880
 US-PATENT-CLASS-73-86
 US-PATENT-3,357,237
 NASA-CASE-XNP-01402
 c21 N71-21688 US-PATENT-APPL-SN-328140
 US-PATENT-CLASS-161-68
 US-PATENT-3,346,442
 NASA-CASE-XNP-00684
 c25 N71-21693 US-PATENT-APPL-SN-260087
 US-PATENT-CLASS-235-150.25
 US-PATENT-3,331,951
 NASA-CASE-XLA-03103
 c25 N71-21694 US-PATENT-APPL-SN-531642
 US-PATENT-CLASS-315-111
 US-PATENT-3,333,152
 NASA-CASE-XLE-02902
 c21 N71-21708 US-PATENT-APPL-SN-485957
 US-PATENT-CLASS-60-202
 US-PATENT-3,336,748
 NASA-CASE-XLA-02551
 c15 N71-21744 US-PATENT-APPL-SN-416940
 US-PATENT-CLASS-284-1
 US-PATENT-3,329,375
 NASA-CASE-XGS-04227
 US-PATENT-APPL-SN-545805
 US-PATENT-CLASS-74-409

ACCESSION NUMBER INDEX

c27 N71-21819	US-PATENT-3,359,819 NASA-CASE-XLE-03499 US-PATENT-APPL-SN-529593 US-PATENT-CLASS-60-251 US-PATENT-3,345,822	c15 N71-22798	NASA-CASE-XMS-04178 US-PATENT-APPL-SN-511299 US-PATENT-CLASS-83-467 US-PATENT-3,367,224
c23 N71-21821	NASA-CASE-XNP-01059 US-PATENT-APPL-SN-393464 US-PATENT-CLASS-250-232 US-PATENT-3,354,320	c15 N71-22799	NASA-CASE-XNP-03511 US-PATENT-APPL-SN-540414 US-PATENT-CLASS-90-12 US-PATENT-3,386,337
c28 N71-21822	NASA-CASE-XNP-04124 US-PATENT-APPL-SN-498168 US-PATENT-CLASS-60-202 US-PATENT-3,345,820	c15 N71-22874	NASA-CASE-XLA-00188 US-PATENT-APPL-SN-254847 US-PATENT-CLASS-102-49.5 US-PATENT-3,368,486
c26 N71-21824	NASA-CASE-XNP-05429 US-PATENT-APPL-SN-578928 US-PATENT-CLASS-103-1 US-PATENT-3,361,067	c11 N71-22875	NASA-CASE-XAC-05333 US-PATENT-APPL-SN-546148 US-PATENT-CLASS-119-15 US-PATENT-3,367,308
c31 N71-21881	NASA-CASE-XNP-02595 US-PATENT-APPL-SN-502709 US-PATENT-CLASS-244-1 US-PATENT-3,333,788	c15 N71-22877	NASA-CASE-XNP-10040 US-PATENT-APPL-SN-592680 US-PATENT-CLASS-188-1 US-PATENT-3,381,778
c23 N71-21882	NASA-CASE-XNP-03853 US-PATENT-APPL-SN-578931 US-PATENT-CLASS-88-24 US-PATENT-3,359,855	c15 N71-22878	NASA-CASE-XMS-04545 US-PATENT-APPL-SN-504601 US-PATENT-CLASS-73-144 US-PATENT-3,381,527
c15 N71-22705	NASA-CASE-XGS-02884 US-PATENT-APPL-SN-432433 US-PATENT-CLASS-51-57 US-PATENT-3,341,977	c21 N71-22880	NASA-CASE-XLA-00793 US-PATENT-APPL-SN-369334 US-PATENT-CLASS-88-1 US-PATENT-3,381,569
c15 N71-22706	NASA-CASE-XMS-09310 US-PATENT-APPL-SN-655724 US-PATENT-CLASS-137-496 US-PATENT-3,384,111	c23 N71-22881	NASA-CASE-XLE-04222 US-PATENT-APPL-SN-512559 US-PATENT-CLASS-220-9 US-PATENT-3,379,330
c08 N71-22707	NASA-CASE-XNP-04067 US-PATENT-APPL-SN-466875 US-PATENT-CLASS-340-172.5 US-PATENT-3,369,222	c09 N71-22888	NASA-CASE-XLA-03114 US-PATENT-APPL-SN-440039 US-PATENT-CLASS-343-708 US-PATENT-3,373,430
c08 N71-22710	NASA-CASE-XNP-02778 US-PATENT-APPL-SN-508170 US-PATENT-CLASS-340-172.5 US-PATENT-3,369,223	c33 N71-22890	NASA-CASE-XLA-07728 US-PATENT-APPL-SN-538908 US-PATENT-CLASS-165-96 US-PATENT-3,374,830
c15 N71-22713	NASA-CASE-XLA-03492 US-PATENT-APPL-SN-395348 US-PATENT-CLASS-156-60 US-PATENT-3,342,653	c18 N71-22894	NASA-CASE-XLE-03925 US-PATENT-APPL-SN-514407 US-PATENT-CLASS-75-204 US-PATENT-3,337,337
c15 N71-22721	NASA-CASE-XNP-03212 US-PATENT-APPL-SN-577549 US-PATENT-CLASS-55-418 US-PATENT-3,385,036	c16 N71-22895	NASA-CASE-XMS-04269 US-PATENT-APPL-SN-516793 US-PATENT-CLASS-250-199 US-PATENT-3,341,708
c15 N71-22722	NASA-CASE-XMS-04292 US-PATENT-APPL-SN-517157 US-PATENT-CLASS-82-14 US-PATENT-3,373,640	c05 N71-22896	NASA-CASE-XMS-02399 US-PATENT-APPL-SN-492344 US-PATENT-CLASS-128-2.06 US-PATENT-3,384,075
c15 N71-22723	NASA-CASE-XNP-01083 US-PATENT-APPL-SN-432028 US-PATENT-CLASS-72-83 US-PATENT-3,340,713	c08 N71-22897	NASA-CASE-XNP-01753 US-PATENT-APPL-SN-423412 US-PATENT-CLASS-235-92 US-PATENT-3,374,339
c05 N71-22748	NASA-CASE-XMS-04170 US-PATENT-APPL-SN-482311 US-PATENT-CLASS-9-312 US-PATENT-3,343,189	c10 N71-22961	NASA-CASE-XMS-02159 US-PATENT-APPL-SN-534564 US-PATENT-CLASS-323-56 US-PATENT-3,365,657
c08 N71-22749	NASA-CASE-XNP-02748 US-PATENT-APPL-SN-420245 US-PATENT-CLASS-340-146.1 US-PATENT-3,373,404	c10 N71-22962	NASA-CASE-XGS-05441 US-PATENT-APPL-SN-505321 US-PATENT-CLASS-328-233 US-PATENT-3,366,886
c07 N71-22750	NASA-CASE-XNP-01735 US-PATENT-APPL-SN-408438 US-PATENT-CLASS-343-786 US-PATENT-3,373,431	c14 N71-22964	NASA-CASE-XLE-02024 US-PATENT-APPL-SN-422099 US-PATENT-CLASS-73-15 US-PATENT-3,365,930
c14 N71-22752	NASA-CASE-XNP-01974 US-PATENT-APPL-SN-568354 US-PATENT-CLASS-73-419 US-PATENT-3,383,922	c14 N71-22965	NASA-CASE-XGS-02319 US-PATENT-APPL-SN-496205 US-PATENT-CLASS-73-117 US-PATENT-3,365,941
c14 N71-22765	NASA-CASE-XLA-00934 US-PATENT-APPL-SN-326298 US-PATENT-CLASS-73-84 US-PATENT-3,339,404	c31 N71-22968	NASA-CASE-XLA-02050 US-PATENT-APPL-SN-568067 US-PATENT-CLASS-244-1 US-PATENT-3,386,685
c33 N71-22792	NASA-CASE-XLA-01243 US-PATENT-APPL-SN-538911 US-PATENT-CLASS-244-1 US-PATENT-3,384,324	c31 N71-22969	NASA-CASE-XLA-03132 US-PATENT-APPL-SN-610728 US-PATENT-CLASS-244-1 US-PATENT-3,386,686
c09 N71-22796	NASA-CASE-XKS-03381 US-PATENT-APPL-SN-437611 US-PATENT-CLASS-317-9 US-PATENT-3,340,430	c03 N71-22974	NASA-CASE-XGS-02630 US-PATENT-APPL-SN-494287 US-PATENT-CLASS-136-132 US-PATENT-3,382,107
c15 N71-22797	NASA-CASE-XLE-01092 US-PATENT-APPL-SN-422098 US-PATENT-CLASS-72-253 US-PATENT-3,342,055	c06 N71-22975	NASA-CASE-XNP-07659 US-PATENT-APPL-SN-567806 US-PATENT-CLASS-18-26 US-PATENT-3,381,339
		c15 N71-22982	NASA-CASE-XLA-02809

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-554897		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-308-176		US-PATENT-3,341,151
	US-PATENT-3,397,932	c09 N71-23015	NASA-CASE-XGS-02751
c28 N71-22983	NASA-CASE-XMP-06926		US-PATENT-APPL-SN-491059
	US-PATENT-APPL-SN-537615		US-PATENT-CLASS-307-288
	US-PATENT-CLASS-60-258		US-PATENT-3,374,366
	US-PATENT-3,336,754	c09 N71-23021	NASA-CASE-XAC-02807
c07 N71-22984	NASA-CASE-XMS-04312		US-PATENT-APPL-SN-456581
	US-PATENT-APPL-SN-521754		US-PATENT-CLASS-324-120
	US-PATENT-CLASS-343-708		US-PATENT-3,384,820
	US-PATENT-3,384,895	c15 N71-23022	NASA-CASE-XMS-01625
c09 N71-22985	NASA-CASE-XMP-03934		US-PATENT-APPL-SN-418933
	US-PATENT-APPL-SN-530958		US-PATENT-CLASS-136-86
	US-PATENT-CLASS-250-83.3		US-PATENT-3,389,017
	US-PATENT-3,379,885	c15 N71-23023	NASA-CASE-XMP-04042
c10 N71-22986	NASA-CASE-XMP-01892		US-PATENT-APPL-SN-605518
	US-PATENT-APPL-SN-464878		US-PATENT-CLASS-55-204
	US-PATENT-CLASS-328-167		US-PATENT-3,397,512
	US-PATENT-3,375,451	c15 N71-23024	NASA-CASE-XMP-01747
c09 N71-22987	NASA-CASE-XLR-04788		US-PATENT-APPL-SN-413661
	US-PATENT-APPL-SN-537617		US-PATENT-CLASS-251-148
	US-PATENT-CLASS-313-352		US-PATENT-3,341,169
	US-PATENT-3,396,303	c15 N71-23025	NASA-CASE-XMP-08877
c09 N71-22988	NASA-CASE-XGS-03304		US-PATENT-APPL-SN-574282
	US-PATENT-APPL-SN-483886		US-PATENT-CLASS-62-6
	US-PATENT-CLASS-73-1		US-PATENT-3,367,121
	US-PATENT-3,381,517	c07 N71-23026	NASA-CASE-XMP-02791
c14 N71-22989	NASA-CASE-XLA-01551		US-PATENT-APPL-SN-390251
	US-PATENT-APPL-SN-422092		US-PATENT-CLASS-178-6
	US-PATENT-CLASS-73-190		US-PATENT-3,383,461
	US-PATENT-3,382,714	c09 N71-23027	NASA-CASE-XMP-01960
c14 N71-22990	NASA-CASE-XMS-04201		US-PATENT-APPL-SN-438135
	US-PATENT-APPL-SN-507254		US-PATENT-CLASS-29-572
	US-PATENT-CLASS-324-70		US-PATENT-3,340,599
	US-PATENT-3,379,974	c10 N71-23029	NASA-CASE-XGS-03427
c14 N71-22991	NASA-CASE-XLA-01791		US-PATENT-APPL-SN-500446
	US-PATENT-APPL-SN-462763		US-PATENT-CLASS-307-265
	US-PATENT-CLASS-250-227		US-PATENT-3,383,524
	US-PATENT-3,397,318	c11 N71-23030	NASA-CASE-XMP-03578
c14 N71-22992	NASA-CASE-XGS-01023		US-PATENT-APPL-SN-445292
	US-PATENT-APPL-SN-446131		US-PATENT-CLASS-73-147
	US-PATENT-CLASS-73-65		US-PATENT-3,342,066
	US-PATENT-3,377,845	c10 N71-23033	NASA-CASE-XMP-01318
c14 N71-22993	NASA-CASE-XMS-05365		US-PATENT-APPL-SN-380965
	US-PATENT-APPL-SN-515484		US-PATENT-CLASS-340-174
	US-PATENT-CLASS-310-8.5		US-PATENT-3,388,387
	US-PATENT-3,387,149	c14 N71-23036	NASA-CASE-XMP-01660
c15 N71-22994	NASA-CASE-XPR-05421		US-PATENT-APPL-SN-578916
	US-PATENT-APPL-SN-567686		US-PATENT-CLASS-73-4
	US-PATENT-CLASS-24-126		US-PATENT-3,383,903
	US-PATENT-3,378,892	c14 N71-23037	NASA-CASE-XAC-01662
c14 N71-22995	NASA-CASE-XMP-08680		US-PATENT-APPL-SN-385520
	US-PATENT-APPL-SN-562444		US-PATENT-CLASS-324-117
	US-PATENT-CLASS-73-9		US-PATENT-3,365,665
	US-PATENT-3,376,730	c14 N71-23039	NASA-CASE-XMP-01659
c14 N71-22996	NASA-CASE-XGS-01331		US-PATENT-APPL-SN-410332
	US-PATENT-APPL-SN-445807		US-PATENT-CLASS-136-230
	US-PATENT-CLASS-250-218		US-PATENT-3,377,208
	US-PATENT-3,388,258	c14 N71-23040	NASA-CASE-XMP-05535
c15 N71-22997	NASA-CASE-XMP-01641		US-PATENT-APPL-SN-487939
	US-PATENT-APPL-SN-464885		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-308-10		US-PATENT-3,339,863
	US-PATENT-3,378,315	c14 N71-23041	NASA-CASE-XMP-01056
c18 N71-22998	NASA-CASE-XGS-02435		US-PATENT-APPL-SN-377146
	US-PATENT-APPL-SN-392965		US-PATENT-CLASS-250-41.9
	US-PATENT-CLASS-106-40		US-PATENT-3,340,395
	US-PATENT-3,382,082	c11 N71-23042	NASA-CASE-XMS-02930
c09 N71-22999	NASA-CASE-XLA-00781		US-PATENT-APPL-SN-417253
	US-PATENT-APPL-SN-307271		US-PATENT-CLASS-250-52
	US-PATENT-CLASS-88-14		US-PATENT-3,340,397
	US-PATENT-3,364,813	c26 N71-23043	NASA-CASE-XMP-01959
c07 N71-23001	NASA-CASE-XGS-01812		US-PATENT-APPL-SN-410330
	US-PATENT-APPL-SN-392973		US-PATENT-CLASS-136-89
	US-PATENT-CLASS-340-174.1		US-PATENT-3,396,057
	US-PATENT-3,380,042	c17 N71-23046	NASA-CASE-XMP-04338
c03 N71-23006	NASA-CASE-XGS-02631		US-PATENT-APPL-SN-461765
	US-PATENT-APPL-SN-425972		US-PATENT-CLASS-29-182.2
	US-PATENT-CLASS-136-133		US-PATENT-3,421,864
	US-PATENT-3,340,099	c18 N71-23047	NASA-CASE-XLA-01995
c02 N71-23007	NASA-CASE-XMP-04163		US-PATENT-APPL-SN-411945
	US-PATENT-APPL-SN-424156		US-PATENT-CLASS-148-6.16
	US-PATENT-CLASS-73-189		US-PATENT-3,395,053
	US-PATENT-3,340,732	c15 N71-23048	NASA-CASE-XMP-03972
c31 N71-23008	NASA-CASE-XLA-04804		US-PATENT-APPL-SN-502710
	US-PATENT-APPL-SN-577546		US-PATENT-CLASS-184-1
	US-PATENT-CLASS-102-49.5		US-PATENT-3,367,445
	US-PATENT-3,384,016	c15 N71-23049	NASA-CASE-XMP-01049
c31 N71-23009	NASA-CASE-XGS-02607		US-PATENT-APPL-SN-506137
	US-PATENT-APPL-SN-474531		US-PATENT-CLASS-339-5

c15 N71-23050 US-PATENT-3,375,479
 NASA-CASE-XMP-01730
 US-PATENT-APPL-SN-517869
 US-PATENT-CLASS-228-8
 US-PATENT-3,373,914
 c15 N71-23051 NASA-CASE-XAC-01158
 US-PATENT-APPL-SN-420250
 US-PATENT-CLASS-137-625.5
 US-PATENT-3,369,564
 c15 N71-23052 NASA-CASE-XLA-03497
 US-PATENT-APPL-SN-392992
 US-PATENT-CLASS-156-285
 US-PATENT-3,373,069
 c05 N71-23080 NASA-CASE-XLE-02531
 US-PATENT-APPL-SN-425096
 US-PATENT-CLASS-312-1
 US-PATENT-3,337,279
 c28 N71-23081 NASA-CASE-XNP-02923
 US-PATENT-APPL-SN-494280
 US-PATENT-CLASS-60-202
 US-PATENT-3,367,114
 c10 N71-23084 NASA-CASE-XLA-01219
 US-PATENT-APPL-SN-402978
 US-PATENT-CLASS-332-1
 US-PATENT-3,366,894
 c33 N71-23085 NASA-CASE-XPR-03802
 US-PATENT-APPL-SN-460877
 US-PATENT-CLASS-73-190
 US-PATENT-3,367,182
 c15 N71-23086 NASA-CASE-XMS-04533
 US-PATENT-APPL-SN-557016
 US-PATENT-CLASS-202-234
 US-PATENT-3,397,117
 c14 N71-23087 NASA-CASE-XNP-03918
 US-PATENT-APPL-SN-510475
 US-PATENT-CLASS-73-88.5
 US-PATENT-3,388,590
 c18 N71-23088 NASA-CASE-XNP-00597
 US-PATENT-APPL-SN-410325
 US-PATENT-CLASS-65-7
 US-PATENT-3,337,315
 c14 N71-23092 NASA-CASE-XLA-01530
 US-PATENT-APPL-SN-420466
 US-PATENT-CLASS-188-1
 US-PATENT-3,337,004
 c14 N71-23093 NASA-CASE-XLE-03280
 US-PATENT-APPL-SN-517156
 US-PATENT-CLASS-73-400
 US-PATENT-3,379,064
 c05 N71-23096 NASA-CASE-XMS-06064
 US-PATENT-APPL-SN-563646
 US-PATENT-CLASS-2-14
 US-PATENT-3,378,851
 c09 N71-23097 NASA-CASE-XNP-02140
 US-PATENT-APPL-SN-440036
 US-PATENT-CLASS-330-61
 US-PATENT-3,337,812
 c07 N71-23098 NASA-CASE-XGS-00740
 US-PATENT-APPL-SN-353644
 US-PATENT-CLASS-325-305
 US-PATENT-3,341,778
 c10 N71-23099 NASA-CASE-XNP-08875
 US-PATENT-APPL-SN-640455
 US-PATENT-CLASS-343-6.5
 US-PATENT-3,380,049
 c05 N71-23159 NASA-CASE-XMP-06589
 US-PATENT-APPL-SN-543206
 US-PATENT-CLASS-5-82
 US-PATENT-3,343,180
 c05 N71-23161 NASA-CASE-XAC-07043
 US-PATENT-APPL-SN-566397
 US-PATENT-CLASS-2-2.1
 US-PATENT-3,405,406
 c14 N71-23174 NASA-CASE-XGS-02610
 US-PATENT-APPL-SN-491054
 US-PATENT-CLASS-321-60
 US-PATENT-3,417,316
 c14 N71-23175 NASA-CASE-XKS-03509
 US-PATENT-APPL-SN-566392
 US-PATENT-CLASS-356-166
 US-PATENT-3,414,358
 c04 N71-23185 NASA-CASE-XAC-05422
 US-PATENT-APPL-SN-488885
 US-PATENT-CLASS-128-2.05
 US-PATENT-3,412,729
 c03 N71-23187 NASA-CASE-XGS-03390
 US-PATENT-APPL-SN-551182
 US-PATENT-CLASS-136-89
 US-PATENT-3,419,433

c09 N71-23188 NASA-CASE-XNP-14301
 US-PATENT-APPL-SN-697341
 US-PATENT-CLASS-321-2
 US-PATENT-3,470,446
 c09 N71-23189 NASA-CASE-XNP-06028
 US-PATENT-APPL-SN-649356
 US-PATENT-CLASS-315-26
 US-PATENT-3,431,460
 c09 N71-23190 NASA-CASE-XLE-04501
 US-PATENT-APPL-SN-522794
 US-PATENT-CLASS-313-231
 US-PATENT-3,413,510
 c09 N71-23191 NASA-CASE-XMS-05890
 US-PATENT-APPL-SN-650166
 US-PATENT-CLASS-137-554
 US-PATENT-3,414,012
 c14 N71-23225 NASA-CASE-XNP-04817
 US-PATENT-APPL-SN-516152
 US-PATENT-CLASS-73-12
 US-PATENT-3,412,598
 c14 N71-23226 NASA-CASE-XNP-06509
 US-PATENT-APPL-SN-570095
 US-PATENT-CLASS-73-194
 US-PATENT-3,411,356
 c14 N71-23227 NASA-CASE-XMP-06515
 US-PATENT-APPL-SN-548808
 US-PATENT-CLASS-73-432
 US-PATENT-3,408,870
 c06 N71-23230 NASA-CASE-XMP-06409
 US-PATENT-APPL-SN-575930
 US-PATENT-CLASS-260-448.2
 US-PATENT-3,433,818
 c03 N71-23239 NASA-CASE-XMP-08217
 US-PATENT-APPL-SN-688807
 US-PATENT-CLASS-321-2
 US-PATENT-3,470,443
 c14 N71-23240 NASA-CASE-XLA-00941
 US-PATENT-APPL-SN-508873
 US-PATENT-CLASS-250-227
 US-PATENT-3,407,304
 c17 N71-23248 NASA-CASE-XLE-03629
 US-PATENT-APPL-SN-554950
 US-PATENT-CLASS-75-170
 US-PATENT-3,415,643
 c15 N71-23254 NASA-CASE-XPR-05302
 US-PATENT-APPL-SN-685463
 US-PATENT-CLASS-85-7
 US-PATENT-3,443,472
 c15 N71-23255 NASA-CASE-XMS-07487
 US-PATENT-APPL-SN-580365
 US-PATENT-CLASS-244-83
 US-PATENT-3,409,252
 c15 N71-23256 NASA-CASE-XNP-03290
 US-PATENT-APPL-SN-479353
 US-PATENT-CLASS-53-22
 US-PATENT-3,415,032
 c14 N71-23267 NASA-CASE-XLE-04026
 US-PATENT-APPL-SN-617770
 US-PATENT-CLASS-13-26
 US-PATENT-3,470,304
 c14 N71-23268 NASA-CASE-XLA-01907
 US-PATENT-APPL-SN-335441
 US-PATENT-CLASS-356-72
 US-PATENT-3,419,329
 c14 N71-23269 NASA-CASE-XLA-01584
 US-PATENT-APPL-SN-416943
 US-PATENT-CLASS-250-203
 US-PATENT-3,389,260
 c09 N71-23270 NASA-CASE-XMS-04919
 US-PATENT-APPL-SN-516155
 US-PATENT-CLASS-307-263
 US-PATENT-3,417,266
 c10 N71-23271 NASA-CASE-XNP-00952
 US-PATENT-APPL-SN-388967
 US-PATENT-CLASS-317-148.5
 US-PATENT-3,417,298
 c21 N71-23289 NASA-CASE-XNP-01669
 US-PATENT-APPL-SN-399419
 US-PATENT-CLASS-74-5.47
 US-PATENT-3,415,126
 c26 N71-23292 NASA-CASE-XLE-10715
 US-PATENT-APPL-SN-603397
 US-PATENT-CLASS-252-62.3
 US-PATENT-3,409,554
 c28 N71-23293 NASA-CASE-XNP-06942
 US-PATENT-APPL-SN-563651
 US-PATENT-CLASS-60-202
 US-PATENT-3,412,559
 c08 N71-23295 NASA-CASE-XNP-04819

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-502701		US-PATENT-CLASS-331-78
	US-PATENT-CLASS-340-146.2		US-PATENT-3,470,489
	US-PATENT-3,390,378		NASA-CASE-XLE-01903
c09 N71-23311	NASA-CASE-XGS-03632	c22 N71-23599	US-PATENT-APPL-SN-466868
	US-PATENT-APPL-SN-502739		US-PATENT-CLASS-310-4
	US-PATENT-CLASS-307-260		US-PATENT-3,393,330
c10 N71-23315	US-PATENT-3,390,282	c26 N71-23654	NASA-CASE-XLE-02798
	NASA-CASE-XLA-03356		US-PATENT-APPL-SN-660571
	US-PATENT-APPL-SN-536216		US-PATENT-CLASS-148-1.5
	US-PATENT-CLASS-307-234		US-PATENT-3,390,020
c09 N71-23316	US-PATENT-3,448,290	c18 N71-23658	NASA-CASE-XLE-02647
	NASA-CASE-XHS-09352		US-PATENT-APPL-SN-430226
	US-PATENT-APPL-SN-564919		US-PATENT-CLASS-220-9
	US-PATENT-CLASS-323-22		US-PATENT-3,392,864
c05 N71-23317	US-PATENT-3,417,321	c10 N71-23662	NASA-CASE-XGS-01118
	NASA-CASE-XHS-06061		US-PATENT-APPL-SN-408442
	US-PATENT-APPL-SN-605092		US-PATENT-CLASS-235-154
	US-PATENT-CLASS-307-260		US-PATENT-3,399,299
c03 N71-23336	US-PATENT-3,467,837	c10 N71-23663	NASA-CASE-XKS-04631
	NASA-CASE-XGS-01513		US-PATENT-APPL-SN-663180
	US-PATENT-APPL-SN-502756		US-PATENT-CLASS-200-82
	US-PATENT-CLASS-136-166		US-PATENT-3,433,909
c03 N71-23354	US-PATENT-3,390,017	c10 N71-23669	NASA-CASE-XAC-10607
	NASA-CASE-XLE-04535		US-PATENT-APPL-SN-694345
	US-PATENT-APPL-SN-588671		US-PATENT-CLASS-331-111
	US-PATENT-CLASS-250-212		US-PATENT-3,470,495
c17 N71-23365	US-PATENT-3,437,818	c14 N71-23698	NASA-CASE-XGS-08259
	NASA-CASE-XNP-03063		US-PATENT-APPL-SN-666551
	US-PATENT-APPL-SN-521994		US-PATENT-CLASS-242-192
	US-PATENT-CLASS-75-172		US-PATENT-3,460,781
c14 N71-23401	US-PATENT-3,413,115	c14 N71-23699	NASA-CASE-XHF-10289
	NASA-CASE-XGS-03230		US-PATENT-APPL-SN-674356
	US-PATENT-APPL-SN-517158		US-PATENT-CLASS-324-72
	US-PATENT-CLASS-250-83		US-PATENT-3,470,466
c07 N71-23405	US-PATENT-3,419,992	c18 N71-23710	NASA-CASE-XLE-08511
	NASA-CASE-XGS-01537		US-PATENT-APPL-SN-635972
	US-PATENT-APPL-SN-432026		US-PATENT-CLASS-29-182.1
	US-PATENT-CLASS-325-163		US-PATENT-3,419,363
c09 N71-23443	US-PATENT-3,417,332	c30 N71-23723	NASA-CASE-XNP-09832
	NASA-CASE-XLE-02823		US-PATENT-APPL-SN-632163
	US-PATENT-APPL-SN-491058		US-PATENT-CLASS-343-100
	US-PATENT-CLASS-310-10		US-PATENT-3,417,399
c03 N71-23449	US-PATENT-3,393,332	c14 N71-23725	NASA-CASE-XGS-01013
	NASA-CASE-XLE-08569		US-PATENT-APPL-SN-665209
	US-PATENT-APPL-SN-641420		US-PATENT-CLASS-73-133
	US-PATENT-CLASS-136-89		US-PATENT-3,460,381
c01 N71-23497	US-PATENT-3,472,698	c14 N71-23726	NASA-CASE-XHF-05224
	NASA-CASE-XLA-01486		US-PATENT-APPL-SN-660842
	US-PATENT-APPL-SN-484485		US-PATENT-CLASS-73-189
	US-PATENT-CLASS-244-13		US-PATENT-3,465,584
c06 N71-23499	US-PATENT-3,392,936	c14 N71-23755	NASA-CASE-XHF-04134
	NASA-CASE-XNP-03835		US-PATENT-APPL-SN-610723
	US-PATENT-APPL-SN-456874		US-PATENT-CLASS-73-4
	US-PATENT-CLASS-44-77		US-PATENT-3,472,059
c06 N71-23500	US-PATENT-3,393,059	c14 N71-23790	NASA-CASE-XAC-04885
	NASA-CASE-XNP-03250		US-PATENT-APPL-SN-573432
	US-PATENT-APPL-SN-485058		US-PATENT-CLASS-73-141
	US-PATENT-CLASS-260-85.5		US-PATENT-3,415,116
c09 N71-23525	US-PATENT-3,419,537	c14 N71-23797	NASA-CASE-XNP-06510
	NASA-CASE-XGS-02317		US-PATENT-APPL-SN-562445
	US-PATENT-APPL-SN-576183		US-PATENT-CLASS-250-203
	US-PATENT-CLASS-328-61		US-PATENT-3,417,247
c06 N71-23527	US-PATENT-3,464,018	c15 N71-23798	NASA-CASE-XNP-02330
	NASA-CASE-XLE-01997		US-PATENT-APPL-SN-608944
	US-PATENT-APPL-SN-427990		US-PATENT-CLASS-219-130
	US-PATENT-CLASS-23-230		US-PATENT-3,469,069
c10 N71-23543	US-PATENT-3,472,625	c15 N71-23809	NASA-CASE-XAC-10019
	NASA-CASE-XHS-00913		US-PATENT-APPL-SN-686209
	US-PATENT-APPL-SN-416945		US-PATENT-CLASS-74-89.18
	US-PATENT-CLASS-317-31		US-PATENT-3,472,086
c10 N71-23544	US-PATENT-3,393,347	c15 N71-23810	NASA-CASE-XLE-05033
	NASA-CASE-XNP-05382		US-PATENT-APPL-SN-510474
	US-PATENT-APPL-SN-536217		US-PATENT-CLASS-252-12
	US-PATENT-CLASS-332-19		US-PATENT-3,466,243
c09 N71-23545	US-PATENT-3,393,380	c15 N71-23811	NASA-CASE-XNP-05297
	NASA-CASE-XHF-04367		US-PATENT-APPL-SN-640458
	US-PATENT-APPL-SN-457874		US-PATENT-CLASS-72-354
	US-PATENT-CLASS-307-235		US-PATENT-3,443,412
c09 N71-23548	US-PATENT-3,404,289	c15 N71-23812	NASA-CASE-XHF-07808
	NASA-CASE-XNP-06507		US-PATENT-APPL-SN-684178
	US-PATENT-APPL-SN-605099		US-PATENT-CLASS-308-2
	US-PATENT-CLASS-333-98		US-PATENT-3,463,563
c09 N71-23573	US-PATENT-3,419,827	c15 N71-23815	NASA-CASE-XNP-07069
	NASA-CASE-XGS-01418		US-PATENT-APPL-SN-672382
	US-PATENT-APPL-SN-392969		US-PATENT-CLASS-219-125
	US-PATENT-CLASS-333-73		US-PATENT-3,469,068
c09 N71-23598	US-PATENT-3,393,384	c15 N71-23816	NASA-CASE-XLE-03803
	NASA-CASE-XER-11019		US-PATENT-APPL-SN-505765
	US-PATENT-APPL-SN-711971		US-PATENT-CLASS-220-9

ACCESSION NUMBER INDEX

c15 N71-23817	US-PATENT-3,392,865 NASA-CASE-XLE-06773 US-PATENT-APPL-SN-646124 US-PATENT-CLASS-72-467 US-PATENT-3,469,436	c14 N71-24233	NASA-CASE-XGS-04478 US-PATENT-APPL-SN-566717 US-PATENT-CLASS-73-88.5 US-PATENT-3,460,378
c17 N71-23828	NASA-CASE-XMP-02303 US-PATENT-APPL-SN-453229 US-PATENT-CLASS-148-6.20 US-PATENT-3,416,975	c14 N71-24234	NASA-CASE-XMP-10966 US-PATENT-APPL-SN-644447 US-PATENT-CLASS-73-15.6 US-PATENT-3,469,437
c31 N71-23912	NASA-CASE-XMP-05941 US-PATENT-APPL-SN-653277 US-PATENT-CLASS-244-1 US-PATENT-3,443,773	c33 N71-24276	NASA-CASE-XLA-02059 US-PATENT-APPL-SN-576181 US-PATENT-CLASS-165-12 US-PATENT-3,406,742
c28 N71-23968	NASA-CASE-XLE-04857 US-PATENT-APPL-SN-621742 US-PATENT-CLASS-239-127.1 US-PATENT-3,460,759	c32 N71-24285	NASA-CASE-XMP-02392 US-PATENT-APPL-SN-596735 US-PATENT-CLASS-73-49.2 US-PATENT-3,399,574
c32 N71-23971	NASA-CASE-XAC-05632 US-PATENT-APPL-SN-568355 US-PATENT-CLASS-244-77 US-PATENT-3,412,961	c31 N71-24315	NASA-CASE-XLA-04901 US-PATENT-APPL-SN-586325 US-PATENT-CLASS-244-1 US-PATENT-3,405,887
c23 N71-23976	NASA-CASE-XLA-01987 US-PATENT-APPL-SN-542713 US-PATENT-CLASS-346-107 US-PATENT-3,392,403	c28 N71-24321	NASA-CASE-XMP-03692 US-PATENT-APPL-SN-640787 US-PATENT-CLASS-60-263 US-PATENT-3,443,384
c31 N71-24035	NASA-CASE-XLA-01027 US-PATENT-APPL-SN-494283 US-PATENT-CLASS-52-272 US-PATENT-3,416,274	c07 N71-24583	NASA-CASE-NPO-10096 US-PATENT-APPL-SN-730700 US-PATENT-CLASS-329-140 US-PATENT-3,533,001
c15 N71-24042	NASA-CASE-XMP-04731 US-PATENT-APPL-SN-534966 US-PATENT-CLASS-103-48 US-PATENT-3,367,271	c09 N71-24595	NASA-CASE-GSC-10021-1 US-PATENT-APPL-SN-790420 US-PATENT-CLASS-343-7.5 US-PATENT-3,540,045
c15 N71-24043	NASA-CASE-XKS-03338 US-PATENT-APPL-SN-547072 US-PATENT-CLASS-89-1.806 US-PATENT-3,415,156	c09 N71-24596	NASA-CASE-XMP-01306-2 US-PATENT-APPL-SN-684083 US-PATENT-CLASS-328-133 US-PATENT-3,509,475
c15 N71-24044	NASA-CASE-XMP-06888 US-PATENT-APPL-SN-591000 US-PATENT-CLASS-62-40 US-PATENT-3,415,069	c09 N71-24597	NASA-CASE-ARC-10132-1 US-PATENT-APPL-SN-759460 US-PATENT-CLASS-73-398 US-PATENT-3,545,275
c15 N71-24045	NASA-CASE-IGS-04548 US-PATENT-APPL-SN-672383 US-PATENT-CLASS-74-100 US-PATENT-3,460,397	c15 N71-24599	NASA-CASE-HSC-12052-1 US-PATENT-APPL-SN-770371 US-PATENT-CLASS-254-150 US-PATENT-CLASS-254-173 US-PATENT-CLASS-254-186
c15 N71-24046	NASA-CASE-XLE-10337 US-PATENT-APPL-SN-594633 US-PATENT-CLASS-252-26 US-PATENT-3,391,080	c15 N71-24600	US-PATENT-3,545,725 NASA-CASE-XGS-08718 US-PATENT-APPL-SN-785611 US-PATENT-CLASS-9-9 US-PATENT-CLASS-74-2 US-PATENT-CLASS-89-1.5 US-PATENT-CLASS-244-1 US-PATENT-CLASS-244-150 US-PATENT-3,540,676
c15 N71-24047	NASA-CASE-XGS-03120 US-PATENT-APPL-SN-485958 US-PATENT-CLASS-156-3 US-PATENT-3,470,043	c03 N71-24605	NASA-CASE-XMP-04758 US-PATENT-APPL-SN-557861 US-PATENT-CLASS-320-17 US-PATENT-3,413,536
c16 N71-24074	NASA-CASE-XLA-03375 US-PATENT-APPL-SN-512562 US-PATENT-CLASS-356-104 US-PATENT-3,446,558	c05 N71-24606	NASA-CASE-XKS-10804 US-PATENT-APPL-SN-691909 US-PATENT-CLASS-35-17 US-PATENT-3,508,347
c17 N71-24142	NASA-CASE-XLE-06969 US-PATENT-APPL-SN-655675 US-PATENT-CLASS-148-126 US-PATENT-3,463,679	c06 N71-24607	NASA-CASE-XMP-09699 US-PATENT-APPL-SN-711972 US-PATENT-CLASS-73-17 US-PATENT-3,546,920
c33 N71-24145	NASA-CASE-XLE-03432 US-PATENT-APPL-SN-559389 US-PATENT-CLASS-13-35 US-PATENT-3,409,730	c07 N71-24612	NASA-CASE-XMP-06092 US-PATENT-APPL-SN-550088 US-PATENT-CLASS-178-7.1 US-PATENT-3,470,318
c05 N71-24147	NASA-CASE-XMS-10269 US-PATENT-APPL-SN-590158 US-PATENT-CLASS-165-46 US-PATENT-3,425,486	c07 N71-24613	NASA-CASE-NPO-10851 US-PATENT-APPL-SN-805406 US-PATENT-CLASS-325-325 US-PATENT-3,551,816
c15 N71-24164	NASA-CASE-XLA-01494 US-PATENT-APPL-SN-499122 US-PATENT-CLASS-156-545 US-PATENT-3,416,988	c07 N71-24614	NASA-CASE-XKS-09340 US-PATENT-APPL-SN-666555 US-PATENT-CLASS-343-703 US-PATENT-3,540,056
c16 N71-24170	NASA-CASE-XLA-04295 US-PATENT-APPL-SN-546149 US-PATENT-CLASS-356-107 US-PATENT-3,468,609	c09 N71-24618	NASA-CASE-FRC-10029 US-PATENT-APPL-SN-760389 US-PATENT-CLASS-128-2.06 US-PATENT-3,547,105
c18 N71-24183	NASA-CASE-XGS-04799 US-PATENT-APPL-SN-452944 US-PATENT-CLASS-106-84 US-PATENT-3,416,939	c07 N71-24621	NASA-CASE-GSC-10118-1 US-PATENT-APPL-SN-783375 US-PATENT-CLASS-179-15 US-PATENT-CLASS-325-4 US-PATENT-CLASS-343-100 US-PATENT-3,546,386
c18 N71-24184	NASA-CASE-XMP-02139 US-PATENT-APPL-SN-430777 US-PATENT-CLASS-106-84 US-PATENT-3,434,855	c07 N71-24622	NASA-CASE-NPO-10388
c14 N71-24232	NASA-CASE-XAC-04458 US-PATENT-APPL-SN-534975 US-PATENT-CLASS-73-400 US-PATENT-3,392,586		

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-725432	c06 N71-24739	NASA-CASE-ARC-10098-1
	US-PATENT-CLASS-179-15		US-PATENT-APPL-SN-702967
	US-PATENT-CLASS-324-77		US-PATENT-CLASS-260-2.5
c05 N71-24623	US-PATENT-3,548,107		US-PATENT-3,549,564
	NASA-CASE-XMS-09635	c06 N71-24740	NASA-CASE-XMP-03074
	US-PATENT-APPL-SN-586329		US-PATENT-APPL-SN-593595
	US-PATENT-CLASS-2-2.1		US-PATENT-CLASS-260-72.5
	US-PATENT-3,516,091		US-PATENT-3,516,971
c07 N71-24624	NASA-CASE-GSC-10131-1	c07 N71-24741	NASA-CASE-NPO-10118
	US-PATENT-APPL-SN-754055		US-PATENT-APPL-SN-704465
	US-PATENT-CLASS-340-172.5		US-PATENT-CLASS-235-152
	US-PATENT-3,546,684		US-PATENT-3,541,314
c07 N71-24625	NASA-CASE-XMS-09610	c07 N71-24742	NASA-CASE-NPO-10140
	US-PATENT-APPL-SN-766170		US-PATENT-APPL-SN-691737
	US-PATENT-CLASS-343-113		US-PATENT-CLASS-187-7.1
	US-PATENT-3,540,054		US-PATENT-3,541,250
c08 N71-24633	NASA-CASE-NPO-10567	c31 N71-24750	NASA-CASE-XGS-01654
	US-PATENT-APPL-SN-679055		US-PATENT-APPL-SN-434148
	US-PATENT-CLASS-235-153		US-PATENT-CLASS-102-50
	US-PATENT-3,517,171		US-PATENT-3,282,541
c08 N71-24650	NASA-CASE-NPO-10150	c10 N71-24798	NASA-CASE-XLS-03061-1
	US-PATENT-APPL-SN-660843		US-PATENT-APPL-SN-632152
	US-PATENT-CLASS-340-347		US-PATENT-CLASS-340-412
	US-PATENT-3,537,103		US-PATENT-3,546,694
c15 N71-24679	NASA-CASE-XMP-10475	c10 N71-24799	NASA-CASE-XNP-06505
	US-PATENT-APPL-SN-763868		US-PATENT-APPL-SN-562933
	US-PATENT-CLASS-72-369		US-PATENT-CLASS-307-254
	US-PATENT-3,546,917		US-PATENT-3,501,648
c03 N71-24681	NASA-CASE-XLE-08569-2	c09 N71-24800	NASA-CASE-ERC-10075
	US-PATENT-APPL-SN-829825		US-PATENT-APPL-SN-775870
	US-PATENT-CLASS-29-572		US-PATENT-CLASS-321-45
	US-PATENT-3,541,679		US-PATENT-3,539,905
c12 N71-24692	NASA-CASE-XFR-02007	c09 N71-24803	NASA-CASE-NPO-10242
	US-PATENT-APPL-SN-378080		US-PATENT-APPL-SN-749181
	US-PATENT-CLASS-73-389		US-PATENT-CLASS-307-88
	US-PATENT-3,273,399		US-PATENT-3,541,346
c14 N71-24693	NASA-CASE-XMF-04415	c09 N71-24804	NASA-CASE-GSC-10299-1
	US-PATENT-APPL-SN-644446		US-PATENT-APPL-SN-836367
	US-PATENT-CLASS-33-174		US-PATENT-CLASS-343-100
	US-PATENT-3,360,864		US-PATENT-3,540,050
c15 N71-24694	NASA-CASE-GSC-10306-1	c09 N71-24805	NASA-CASE-XMP-06892
	US-PATENT-APPL-SN-789278		US-PATENT-APPL-SN-757875
	US-PATENT-CLASS-248-358		US-PATENT-CLASS-318-318
	US-PATENT-3,537,672		US-PATENT-3,546,553
c15 N71-24695	NASA-CASE-XNP-06936	c09 N71-24806	NASA-CASE-NPO-10198
	US-PATENT-APPL-SN-640786		US-PATENT-APPL-SN-723804
	US-PATENT-CLASS-318-382		US-PATENT-CLASS-328-165
	US-PATENT-3,487,281		US-PATENT-3,550,023
c15 N71-24696	NASA-CASE-NPO-10173	c09 N71-24807	NASA-CASE-MFS-14114-2
	US-PATENT-APPL-SN-796360		US-PATENT-APPL-SN-854815
	US-PATENT-CLASS-310-101		US-PATENT-CLASS-165-105
	US-PATENT-3,535,570		US-PATENT-CLASS-165-107
c09 N71-24717	NASA-CASE-XMP-08804		US-PATENT-CLASS-165-138
	US-PATENT-APPL-SN-683606		US-PATENT-CLASS-310-4
	US-PATENT-CLASS-324-181		US-PATENT-3,537,515
c03 N71-24718	NASA-CASE-XMP-08880	c09 N71-24808	NASA-CASE-XNP-08880
	US-PATENT-3,543,159		US-PATENT-APPL-SN-605094
	NASA-CASE-MSC-10960-1		US-PATENT-CLASS-333-98
	US-PATENT-APPL-SN-751198		US-PATENT-3,416,106
	US-PATENT-CLASS-204-305	c14 N71-24809	NASA-CASE-XNP-08961
	US-PATENT-3,547,801		US-PATENT-APPL-SN-661170
c03 N71-24719	NASA-CASE-GSC-10487-1		US-PATENT-CLASS-250-84
	US-PATENT-APPL-SN-828983		US-PATENT-3,487,216
	US-PATENT-CLASS-320-39	c31 N71-24813	NASA-CASE-XAC-06029-1
	US-PATENT-3,541,422		US-PATENT-APPL-SN-588651
c23 N71-24725	NASA-CASE-GSC-10188-1		US-PATENT-CLASS-343-100
	US-PATENT-APPL-SN-791888		US-PATENT-3,540,048
	US-PATENT-CLASS-62-384	c16 N71-24828	NASA-CASE-XAC-10770-1
	US-PATENT-3,545,226		US-PATENT-APPL-SN-690997
c05 N71-24728	NASA-CASE-MSC-12243-1		US-PATENT-CLASS-356-28
	US-PATENT-APPL-SN-857445		US-PATENT-3,547,540
	US-PATENT-CLASS-244-1	c17 N71-24830	NASA-CASE-XNP-04148
	US-PATENT-3,537,668		US-PATENT-APPL-SN-536210
c05 N71-24729	NASA-CASE-MSC-13282-1		US-PATENT-CLASS-204-38
	US-PATENT-APPL-SN-8498		US-PATENT-3,472,742
	US-PATENT-CLASS-128-2.1	c16 N71-24831	NASA-CASE-NPO-10548
	US-PATENT-3,548,812		US-PATENT-APPL-SN-775072
c05 N71-24730	NASA-CASE-XMS-09637-1		US-PATENT-CLASS-330-4
	US-PATENT-APPL-SN-785710		US-PATENT-3,486,123
	US-PATENT-CLASS-2-2.1	c16 N71-24832	NASA-CASE-ERC-10178
	US-PATENT-3,537,107		US-PATENT-APPL-SN-800973
c28 N71-24736	NASA-CASE-XLE-03157		US-PATENT-CLASS-331-94.5
	US-PATENT-APPL-SN-591014		US-PATENT-3,550,034
	US-PATENT-CLASS-60-240	c15 N71-24833	NASA-CASE-XNP-03793
	US-PATENT-3,408,816		US-PATENT-APPL-SN-453225
c05 N71-24739	NASA-CASE-ARC-10100-1		US-PATENT-CLASS-72-56
	US-PATENT-APPL-SN-797058		US-PATENT-3,360,972
	US-PATENT-CLASS-128-24	c15 N71-24834	NASA-CASE-XNP-05634
	US-PATENT-CLASS-128-25		US-PATENT-APPL-SN-605096
	US-PATENT-3,550,585		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-73-95	c15 N71-24895	NASA-CASE-XLA-07473
	US-PATENT-3,460,379		US-PATENT-APPL-SN-839935
c15 N71-24835	NASA-CASE-NPO-10123		US-PATENT-CLASS-318-265
	US-PATENT-APPL-SN-731388		US-PATENT-3,546,552
	US-PATENT-CLASS-128-272	c15 N71-24896	NASA-CASE-ERC-10034
	US-PATENT-CLASS-128-275		US-PATENT-APPL-SN-763706
	US-PATENT-3,540,449		US-PATENT-CLASS-250-43.5
c15 N71-24836	NASA-CASE-XLE-08917-2		US-PATENT-3,549,882
	US-PATENT-CLASS-72-60	c15 N71-24897	NASA-CASE-XLA-03538
	US-PATENT-3,541,825		US-PATENT-APPL-SN-749149
c07 N71-24840	NASA-CASE-NPO-10649		US-PATENT-CLASS-294-83
	US-PATENT-APPL-SN-795182		US-PATENT-3,508,779
	US-PATENT-CLASS-325-113	c15 N71-24903	NASA-CASE-MFS-20395
	US-PATENT-3,541,450		US-PATENT-APPL-SN-830715
c09 N71-24841	NASA-CASE-XNP-09771		US-PATENT-CLASS-285-38
	US-PATENT-APPL-SN-698630		US-PATENT-CLASS-285-314
	US-PATENT-CLASS-333-83		US-PATENT-CLASS-285-317
	US-PATENT-3,541,479		US-PATENT-CLASS-285-406
c09 N71-24842	NASA-CASE-MSC-12209	c09 N71-24904	US-PATENT-3,545,792
	US-PATENT-APPL-SN-881039		NASA-CASE-MFS-20385
	US-PATENT-CLASS-343-797		US-PATENT-APPL-SN-853716
	US-PATENT-3,546,705		US-PATENT-CLASS-310-10
c09 N71-24843	NASA-CASE-XNP-06617	c15 N71-24910	US-PATENT-3,541,361
	US-PATENT-APPL-SN-656993		NASA-CASE-ERC-10045
	US-PATENT-CLASS-324-71		US-PATENT-APPL-SN-763685
	US-PATENT-3,541,439		US-PATENT-CLASS-73-40.7
c10 N71-24844	NASA-CASE-NPO-10169		US-PATENT-3,548,636
	US-PATENT-APPL-SN-701733	c17 N71-24911	NASA-CASE-XLE-04946
	US-PATENT-CLASS-328-171		US-PATENT-APPL-SN-605093
	US-PATENT-3,541,459		US-PATENT-CLASS-118-308
c23 N71-24857	NASA-CASE-XNS-06056-1		US-PATENT-3,472,202
	US-PATENT-APPL-SN-532006	c18 N71-24934	NASA-CASE-NPO-10051
	US-PATENT-CLASS-350-189		US-PATENT-APPL-SN-711898
	US-PATENT-3,472,577		US-PATENT-CLASS-73-38
c33 N71-24858	NASA-CASE-MFS-14253		US-PATENT-3,548,633
	US-PATENT-APPL-SN-709622	c21 N71-24948	NASA-CASE-ERC-10090
	US-PATENT-CLASS-161-69		US-PATENT-APPL-SN-811542
	US-PATENT-3,551,266		US-PATENT-CLASS-343-112
c10 N71-24861	NASA-CASE-XNP-05195	c11 N71-24964	US-PATENT-3,550,129
	US-PATENT-APPL-SN-785595		NASA-CASE-NPO-10141
	US-PATENT-CLASS-318-599		US-PATENT-APPL-SN-673227
	US-PATENT-3,523,228		US-PATENT-CLASS-62-55.5
c10 N71-24862	NASA-CASE-ERC-10010		US-PATENT-3,443,390
	US-PATENT-APPL-SN-771937	c15 N71-24984	NASA-CASE-MFS-14971
	US-PATENT-CLASS-307-235		US-PATENT-APPL-SN-827579
	US-PATENT-3,543,050		US-PATENT-CLASS-74-468
c10 N71-24863	NASA-CASE-XNP-02966		US-PATENT-3,541,875
	US-PATENT-APPL-SN-560968	c11 N71-24985	NASA-CASE-KSC-10126
	US-PATENT-CLASS-324-70		US-PATENT-APPL-SN-845973
	US-PATENT-3,406,336		US-PATENT-CLASS-73-15
c14 N71-24864	NASA-CASE-XLE-04503		US-PATENT-3,545,252
	US-PATENT-APPL-SN-606463	c10 N71-25139	NASA-CASE-MFS-10068
	US-PATENT-CLASS-250-225		US-PATENT-APPL-SN-700541
	US-PATENT-3,546,471		US-PATENT-CLASS-321-9
c15 N71-24865	NASA-CASE-XNP-05114-3		US-PATENT-3,487,288
	US-PATENT-APPL-SN-837378	c28 N71-25213	NASA-CASE-GSC-10709-1
	US-PATENT-CLASS-72-56		US-PATENT-APPL-SN-791288
	US-PATENT-3,540,250		US-PATENT-CLASS-60-202
c23 N71-24868	NASA-CASE-ERC-10001		US-PATENT-3,545,208
	US-PATENT-APPL-SN-712099	c33 N71-25351	NASA-CASE-MFS-14023
	US-PATENT-CLASS-350-310		US-PATENT-APPL-SN-795217
	US-PATENT-3,540,802		US-PATENT-CLASS-52-249
c15 N71-24875	NASA-CASE-XLA-06199		US-PATENT-CLASS-52-404
	US-PATENT-APPL-SN-702911		US-PATENT-CLASS-62-45
	US-PATENT-CLASS-148-6.11		US-PATENT-CLASS-161-161
	US-PATENT-3,540,942		US-PATENT-CLASS-220-9
c33 N71-24876	NASA-CASE-XNP-05524		US-PATENT-3,540,615
	US-PATENT-APPL-SN-250567	c33 N71-25353	NASA-CASE-MFS-20355
	US-PATENT-CLASS-165-2		US-PATENT-APPL-SN-845974
	US-PATENT-3,270,802		US-PATENT-CLASS-165-104
c08 N71-24890	NASA-CASE-XKS-06167		US-PATENT-CLASS-165-105
	US-PATENT-APPL-SN-649076		US-PATENT-CLASS-165-133
	US-PATENT-CLASS-235-155		US-PATENT-CLASS-219-378
	US-PATENT-3,535,497		US-PATENT-CLASS-219-530
c08 N71-24891	NASA-CASE-XNP-09759		US-PATENT-CLASS-244-1
	US-PATENT-APPL-SN-606462		US-PATENT-3,548,930
	US-PATENT-CLASS-235-92	c32 N71-25360	NASA-CASE-XLA-08530
	US-PATENT-3,541,312		US-PATENT-APPL-SN-808577
c09 N71-24892	NASA-CASE-NPO-10716		US-PATENT-CLASS-73-90
	US-PATENT-APPL-SN-851394		US-PATENT-3,546,931
	US-PATENT-CLASS-307-104	c31 N71-25434	NASA-CASE-HSC-13047-1
	US-PATENT-CLASS-317-123		US-PATENT-APPL-SN-850586
	US-PATENT-CLASS-317-188.5		US-PATENT-CLASS-244-1
	US-PATENT-3,549,955		US-PATENT-CLASS-244-113
c09 N71-24893	NASA-CASE-ERC-10125		US-PATENT-CLASS-244-138
	US-PATENT-APPL-SN-773029		US-PATENT-3,547,376
	US-PATENT-CLASS-323-56	c26 N71-25490	NASA-CASE-ERC-10088
	US-PATENT-3,541,421		US-PATENT-APPL-SN-760927
			US-PATENT-CLASS-73-141

ACCESSION NUMBER INDEX

c24 N71-25555	US-PATENT-3,537,305 NASA-CASE-XNP-09469 US-PATENT-APPL-SN-645573 US-PATENT-CLASS-204-168 US-PATENT-3,540,989	c09 N71-26092	US-PATENT-3,559,031 NASA-CASE-XNP-07477 US-PATENT-APPL-SN-605098 US-PATENT-CLASS-318-258 US-PATENT-3,501,684
c10 N71-25865	NASA-CASE-KSC-10002 US-PATENT-APPL-SN-782956 US-PATENT-CLASS-178-69.5 US-PATENT-3,567,861	c18 N71-26100	NASA-CASE-XLA-04251 US-PATENT-APPL-SN-657742 US-PATENT-CLASS-117-104 US-PATENT-3,553,002
c09 N71-25866	NASA-CASE-ARC-10003-1 US-PATENT-APPL-SN-717822 US-PATENT-CLASS-178-66 US-PATENT-CLASS-179-100.2 US-PATENT-3,549,799	c07 N71-26101	NASA-CASE-NPO-10231 US-PATENT-APPL-SN-701767 US-PATENT-CLASS-343-786 US-PATENT-3,534,376
c18 N71-25881	NASA-CASE-XGS-05180 US-PATENT-APPL-SN-721607 US-PATENT-CLASS-260-37 US-PATENT-3,567,677	c07 N71-26102	NASA-CASE-XNP-06611 NASA-CASE-XNP-09830 US-PATENT-APPL-SN-593607 US-PATENT-CLASS-178-6.6 US-PATENT-3,474,192
c10 N71-25882	NASA-CASE-GSC-10022-1 US-PATENT-APPL-SN-785546 US-PATENT-CLASS-331-113 US-PATENT-3,559,096	c10 N71-26103	NASA-CASE-XNP-04623 US-PATENT-APPL-SN-510150 US-PATENT-CLASS-340-146.1 US-PATENT-3,474,413
c14 N71-25892	NASA-CASE-XLA-04555-1 US-PATENT-APPL-SN-594584 US-PATENT-CLASS-148-13 US-PATENT-3,468,727	c02 N71-26110	NASA-CASE-LAR-10249-1 US-PATENT-APPL-SN-835060 US-PATENT-CLASS-244-42 US-PATENT-3,576,301
c10 N71-25899	NASA-CASE-LEW-10345-1 US-PATENT-APPL-SN-805298 US-PATENT-CLASS-137-81.5 US-PATENT-CLASS-235-201 US-PATENT-3,568,702	c09 N71-26133	NASA-CASE-NFS-20075 US-PATENT-APPL-SN-835059 US-PATENT-CLASS-317-101 US-PATENT-CLASS-339-17 US-PATENT-3,575,638
c10 N71-25900	NASA-CASE-ERC-10032 US-PATENT-APPL-SN-757857 US-PATENT-CLASS-333-30 US-PATENT-CLASS-333-72 US-PATENT-3,568,103	c15 N71-26134	NASA-CASE-XKS-07953 US-PATENT-APPL-SN-725405 US-PATENT-CLASS-51-170 US-PATENT-3,553,904
c14 N71-25901	NASA-CASE-XLA-02810 US-PATENT-APPL-SN-764252 US-PATENT-CLASS-250-43.5 US-PATENT-CLASS-250-83.3 US-PATENT-CLASS-340-233 US-PATENT-CLASS-340-285 US-PATENT-3,569,710	c14 N71-26135	NASA-CASE-XAC-03740 US-PATENT-APPL-SN-480211 US-PATENT-CLASS-324-43 US-PATENT-3,564,401
c17 N71-25903	NASA-CASE-XLA-08966-1 US-PATENT-APPL-SN-570678 US-PATENT-CLASS-204-33 US-PATENT-3,468,765	c14 N71-26136	NASA-CASE-XLA-01782 US-PATENT-APPL-SN-576792 US-PATENT-CLASS-73-15.6 US-PATENT-3,472,060
c16 N71-25914	NASA-CASE-XLA-03410 US-PATENT-APPL-SN-512561 US-PATENT-CLASS-250-199 US-PATENT-3,469,087	c14 N71-26137	NASA-CASE-LAR-10305 US-PATENT-APPL-SN-811037 US-PATENT-CLASS-324-0.5 US-PATENT-CLASS-324-58.5 US-PATENT-3,562,631
c10 N71-25917	NASA-CASE-NPO-10595 US-PATENT-APPL-SN-771760 US-PATENT-CLASS-340-347 US-PATENT-3,569,956	c10 N71-26142	NASA-CASE-NPO-10302 US-PATENT-APPL-SN-848811 US-PATENT-CLASS-343-768 US-PATENT-3,553,704
c06 N71-25929	NASA-CASE-NPO-10596 US-PATENT-APPL-SN-756381 US-PATENT-CLASS-260-2.5 US-PATENT-3,557,027	c15 N71-26145	NASA-CASE-PRC-10005 US-PATENT-APPL-SN-756266 US-PATENT-CLASS-33-189 US-PATENT-3,562,919
c10 N71-25950	NASA-CASE-XGS-06226 US-PATENT-APPL-SN-676387 US-PATENT-CLASS-331-113 US-PATENT-3,466,570	c15 N71-26148	NASA-CASE-XNP-05114-2 US-PATENT-APPL-SN-837377 US-PATENT-CLASS-72-56 US-PATENT-3,555,867
c15 N71-25975	NASA-CASE-XMS-10660-1 US-PATENT-APPL-SN-797056 US-PATENT-CLASS-24-205.17 US-PATENT-3,469,289	c18 N71-26153	NASA-CASE-XLE-03940 US-PATENT-APPL-SN-539255 US-PATENT-CLASS-148-126 US-PATENT-3,472,709
c09 N71-25999	NASA-CASE-XGS-05290 US-PATENT-APPL-SN-754019 US-PATENT-CLASS-310-168 US-PATENT-CLASS-310-254 US-PATENT-CLASS-318-138 US-PATENT-CLASS-318-254 US-PATENT-3,569,804	c16 N71-26154	NASA-CASE-ERC-10020 US-PATENT-APPL-SN-709399 US-PATENT-CLASS-350-3.5 US-PATENT-3,540,790
c09 N71-26000	NASA-CASE-XNP-08567 US-PATENT-APPL-SN-640783 US-PATENT-CLASS-307-88 US-PATENT-3,466,459	c18 N71-26155	NASA-CASE-LAR-10373-1 US-PATENT-APPL-SN-761007 US-PATENT-CLASS-260-2.5 US-PATENT-3,481,887
c09 N71-26002	NASA-CASE-XMS-04213-1 US-PATENT-APPL-SN-607484 US-PATENT-CLASS-128-2.1 US-PATENT-3,468,303	c14 N71-26161	NASA-CASE-XLA-08254 US-PATENT-APPL-SN-867843 US-PATENT-CLASS-73-12 US-PATENT-CLASS-73-79 US-PATENT-3,576,127
c03 N71-26084	NASA-CASE-LEW-11358 US-PATENT-APPL-SN-787906 US-PATENT-CLASS-136-6 US-PATENT-3,554,806	c15 N71-26162	NASA-CASE-MSC-15474-1 US-PATENT-APPL-SN-878731 US-PATENT-CLASS-24-263 US-PATENT-3,564,564
c10 N71-26085	NASA-CASE-GSC-10735-1 US-PATENT-APPL-SN-863963 US-PATENT-CLASS-321-2	c28 N71-26173	NASA-CASE-LEW-10689-1 US-PATENT-APPL-SN-830978 US-PATENT-CLASS-60-202 US-PATENT-3,552,125
		c07 N71-26181	NASA-CASE-MSC-12223-1 US-PATENT-APPL-SN-839941 US-PATENT-CLASS-179-1 US-PATENT-3,555,192

ACCESSION NUMBER INDEX

c09 N71-26182	NASA-CASE-NPO-10625 US-PATENT-APPL-SN-856415 US-PATENT-CLASS-60-23 US-PATENT-CLASS-313-236 US-PATENT-CLASS-313-237 US-PATENT-3,562,575	c12 N71-26387	US-PATENT-3,484,712 NASA-CASE-XLA-05541 US-PATENT-APPL-SN-700986 US-PATENT-CLASS-73-301 US-PATENT-3,473,379
c15 N71-26185	NASA-CASE-MPS-14711 US-PATENT-APPL-SN-774266 US-PATENT-CLASS-55-75 US-PATENT-3,557,534	c10 N71-26414	NASA-CASE-XMP-04958-1 US-PATENT-APPL-SN-448365 US-PATENT-CLASS-321-69 US-PATENT-3,438,037
c15 N71-26189	NASA-CASE-XLE-09527-2 US-PATENT-APPL-SN-840870 US-PATENT-CLASS-308-187 US-PATENT-3,561,828	c10 N71-26415	NASA-CASE-NPO-10003 US-PATENT-APPL-SN-638192 US-PATENT-CLASS-330-13 US-PATENT-3,461,393
c14 N71-26199	NASA-CASE-NPO-10691 US-PATENT-APPL-SN-816988 US-PATENT-CLASS-73-61 US-PATENT-3,566,676	c10 N71-26418	NASA-CASE-XGS-04224 US-PATENT-APPL-SN-568364 US-PATENT-CLASS-340-174 US-PATENT-3,483,535
c23 N71-26206	NASA-CASE-IGS-08269 US-PATENT-APPL-SN-787393 US-PATENT-CLASS-356-76 US-PATENT-3,554,647	c10 N71-26434	NASA-CASE-XNP-01466 US-PATENT-APPL-SN-487940 US-PATENT-CLASS-340-174 US-PATENT-3,461,337
c15 N71-26243	NASA-CASE-MSC-10959 US-PATENT-APPL-SN-725719 US-PATENT-CLASS-188-1 US-PATENT-3,420,338	c14 N71-26474	NASA-CASE-XMP-03844-1 US-PATENT-APPL-SN-601229 US-PATENT-CLASS-95-44 US-PATENT-3,472,140
c14 N71-26244	NASA-CASE-XNS-06497 US-PATENT-APPL-SN-617778 US-PATENT-CLASS-324-115 US-PATENT-3,464,012	c14 N71-26475	NASA-CASE-XNP-09701 US-PATENT-APPL-SN-584015 US-PATENT-CLASS-250-83.3 US-PATENT-3,461,290
c14 N71-26266	NASA-CASE-XNP-09830 US-PATENT-APPL-SN-632165 US-PATENT-CLASS-324-0.5 US-PATENT-3,474,328	c10 N71-26531	NASA-CASE-GSC-10413 US-PATENT-APPL-SN-789043 US-PATENT-CLASS-317-20 US-PATENT-CLASS-317-33 US-PATENT-3,555,361
c18 N71-26285	NASA-CASE-MSC-12109 US-PATENT-APPL-SN-889376 US-PATENT-CLASS-2-81 US-PATENT-CLASS-2-275 US-PATENT-CLASS-112-402 US-PATENT-3,563,198	c31 N71-26537	NASA-CASE-GSC-10556-1 NASA-CASE-GSC-10557-1 US-PATENT-APPL-SN-808193 US-PATENT-CLASS-74-5.12 US-PATENT-CLASS-244-1 US-PATENT-CLASS-308-1 US-PATENT-3,554,466
c07 N71-26291	NASA-CASE-HQN-10541-1 US-PATENT-APPL-SN-494739 US-PATENT-CLASS-350-96 US-PATENT-3,556,634	c10 N71-26544	NASA-CASE-NPO-10344 US-PATENT-APPL-SN-732921 US-PATENT-CLASS-340-347 US-PATENT-3,566,396
c07 N71-26292	NASA-CASE-XKS-10543 US-PATENT-APPL-SN-719870 US-PATENT-CLASS-325-67 US-PATENT-3,553,586	c12 N71-26546	NASA-CASE-FRC-10022 US-PATENT-APPL-SN-763729 US-PATENT-CLASS-73-194 US-PATENT-3,555,898
c05 N71-26293	NASA-CASE-XPR-07658-1 US-PATENT-APPL-SN-586324 US-PATENT-CLASS-128-2.06 US-PATENT-3,426,746	c10 N71-26577	NASA-CASE-NPO-10214 US-PATENT-APPL-SN-704299 US-PATENT-CLASS-325-41 US-PATENT-3,566,268
c15 N71-26294	NASA-CASE-XNP-02862-1 US-PATENT-APPL-SN-556830 US-PATENT-CLASS-277-13 US-PATENT-3,468,548	c07 N71-26579	NASA-CASE-XNS-06740-1 US-PATENT-APPL-SN-554277 US-PATENT-CLASS-178-6 US-PATENT-3,470,313
c15 N71-26312	NASA-CASE-XNP-01263-2 US-PATENT-APPL-SN-718279 US-PATENT-CLASS-287-189.365 US-PATENT-3,481,638	c15 N71-26611	NASA-CASE-MSC-11817-1 US-PATENT-APPL-SN-7668 US-PATENT-CLASS-165-44 US-PATENT-CLASS-165-86 US-PATENT-CLASS-188-88 US-PATENT-CLASS-244-1 US-PATENT-CLASS-244-57 US-PATENT-3,563,307
c10 N71-26326	NASA-CASE-NPO-10143 US-PATENT-APPL-SN-692331 US-PATENT-CLASS-58-24 US-PATENT-3,472,019	c10 N71-26626	NASA-CASE-GSC-10891-1 US-PATENT-APPL-SN-568620 US-PATENT-CLASS-307-53 US-PATENT-3,480,789
c10 N71-26331	NASA-CASE-XNP-10854 US-PATENT-APPL-SN-668248 US-PATENT-CLASS-330-31 US-PATENT-3,482,179	c14 N71-26627	NASA-CASE-MPS-14017 US-PATENT-APPL-SN-762956 US-PATENT-CLASS-248-183 US-PATENT-CLASS-308-9 US-PATENT-3,559,937
c05 N71-26333	NASA-CASE-XNS-09652-1 US-PATENT-APPL-SN-618969 US-PATENT-CLASS-2-6 US-PATENT-3,473,165	c15 N71-26635	NASA-CASE-ERC-10022 US-PATENT-APPL-SN-874733 US-PATENT-CLASS-74-89.15 US-PATENT-CLASS-74-424.8 US-PATENT-3,576,135
c10 N71-26334	NASA-CASE-XLA-02619 US-PATENT-APPL-SN-796691 US-PATENT-CLASS-317-DIG.3 US-PATENT-CLASS-317-153 US-PATENT-CLASS-340-235 US-PATENT-3,575,641	c28 N71-26642	NASA-CASE-LEW-10106-1 US-PATENT-APPL-SN-758390 US-PATENT-CLASS-60-202 US-PATENT-3,552,124
c10 N71-26339	NASA-CASE-NPO-10185 US-PATENT-APPL-SN-723805 US-PATENT-CLASS-73-432 US-PATENT-3,472,080	c23 N71-26654	NASA-CASE-NPO-10467 US-PATENT-APPL-SN-798277 US-PATENT-CLASS-62-514 US-PATENT-3,564,866
c15 N71-26346	NASA-CASE-XLE-05641-1 US-PATENT-APPL-SN-605091 US-PATENT-CLASS-72-61 US-PATENT-3,461,700	c14 N71-26672	NASA-CASE-ERC-10033 US-PATENT-APPL-SN-801660
c10 N71-26374	NASA-CASE-GSC-11367 US-PATENT-APPL-SN-675238 US-PATENT-CLASS-331-18		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-73-49.3		US-PATENT-CLASS-73-147
	US-PATENT-3,559,460		US-PATENT-3,572,112
c15 N71-26673	NASA-CASE-XAC-09489-1	c09 N71-27016	NASA-CASE-GSC-11139
	US-PATENT-APPL-SN-694246		US-PATENT-APPL-SN-756511
	US-PATENT-CLASS-356-154		US-PATENT-CLASS-307-234
	US-PATENT-3,565,530		US-PATENT-CLASS-307-246
c19 N71-26674	NASA-CASE-XGS-04173		US-PATENT-CLASS-307-273
	US-PATENT-APPL-SN-658964		US-PATENT-CLASS-328-120
	US-PATENT-CLASS-350-285		US-PATENT-CLASS-330-30
	US-PATENT-3,560,081		US-PATENT-3,569,744
c09 N71-26678	NASA-CASE-ERC-10013	c11 N71-27036	NASA-CASE-INP-09770-3
	US-PATENT-APPL-SN-802972		US-PATENT-APPL-SN-863967
	US-PATENT-CLASS-29-25.18		US-PATENT-CLASS-74-18.2
	US-PATENT-3,562,881		US-PATENT-3,574,286
c32 N71-26681	NASA-CASE-LAR-10098	c09 N71-27053	NASA-CASE-ERC-10113
	US-PATENT-APPL-SN-677475		US-PATENT-APPL-SN-865811
	US-PATENT-CLASS-73-71.4		US-PATENT-CLASS-323-48
	US-PATENT-3,564,906		US-PATENT-CLASS-323-60
c09 N71-26701	NASA-CASE-NPO-10331	c07 N71-27056	US-PATENT-3,571,699
	US-PATENT-APPL-SN-757625		NASA-CASE-HSC-12205-1
	US-PATENT-CLASS-118-49.5		US-PATENT-APPL-SN-882577
	US-PATENT-CLASS-204-298		US-PATENT-CLASS-325-16
	US-PATENT-3,556,048		US-PATENT-CLASS-325-23
c15 N71-26721	NASA-CASE-LAR-10121-1		US-PATENT-CLASS-325-369
	US-PATENT-APPL-SN-766244		US-PATENT-CLASS-343-100
	US-PATENT-CLASS-18-6		US-PATENT-CLASS-343-117
	US-PATENT-3,562,857		US-PATENT-CLASS-343-176
c23 N71-26722	NASA-CASE-GSC-10216-1	c08 N71-27057	US-PATENT-3,568,197
	US-PATENT-APPL-SN-756260		NASA-CASE-XLA-07828
	US-PATENT-CLASS-331-94.5		US-PATENT-APPL-SN-770209
	US-PATENT-3,555,455		US-PATENT-CLASS-318-20.105
c03 N71-26726	NASA-CASE-XNP-03413		US-PATENT-CLASS-325-151.11
	US-PATENT-APPL-SN-640456		US-PATENT-CLASS-340-347DA
	US-PATENT-CLASS-156-212		US-PATENT-3,573,797
	US-PATENT-3,565,719	c14 N71-27058	NASA-CASE-HSC-13276-1
c06 N71-26754	NASA-CASE-XNP-09451		US-PATENT-APPL-SN-880272
	US-PATENT-APPL-SN-713162		US-PATENT-CLASS-219-505
	US-PATENT-CLASS-23-253		US-PATENT-3,575,585
	US-PATENT-3,560,161	c15 N71-27067	NASA-CASE-XKS-07814
c18 N71-26772	NASA-CASE-INP-07770-2		US-PATENT-APPL-SN-672388
	US-PATENT-APPL-SN-711903		US-PATENT-CLASS-182-10
	US-PATENT-CLASS-106-296		US-PATENT-CLASS-188-65.5
	US-PATENT-3,576,656		US-PATENT-3,568,795
c17 N71-26773	NASA-CASE-XNP-04262-2	c15 N71-27068	NASA-CASE-NPO-10796
	US-PATENT-APPL-SN-684894		US-PATENT-APPL-SN-815760
	US-PATENT-CLASS-75-66		US-PATENT-CLASS-220-46
	US-PATENT-3,565,607		US-PATENT-3,568,874
c14 N71-26774	NASA-CASE-ERC-11020	c15 N71-27084	NASA-CASE-NPO-10755
	US-PATENT-APPL-SN-686248		US-PATENT-APPL-SN-816733
	US-PATENT-CLASS-325-363		US-PATENT-CLASS-417-50
	US-PATENT-3,564,420		US-PATENT-3,567,339
c28 N71-26779	NASA-CASE-XLA-04126	c02 N71-27088	NASA-CASE-XLA-08967
	US-PATENT-APPL-SN-467820		US-PATENT-APPL-SN-837830
	US-PATENT-CLASS-86-1		US-PATENT-CLASS-244-90
	US-PATENT-CLASS-86-20.2		US-PATENT-3,570,789
	US-PATENT-CLASS-102-101	c14 N71-27090	NASA-CASE-ERC-10044-1
	US-PATENT-CLASS-264-3		US-PATENT-APPL-SN-811892
	US-PATENT-3,570,364		US-PATENT-CLASS-250-43.5R
c28 N71-26781	NASA-CASE-LEW-10210-1		US-PATENT-CLASS-250-83.6R
	US-PATENT-APPL-SN-804172		US-PATENT-CLASS-324-33
	US-PATENT-CLASS-60-202		US-PATENT-3,575,597
	US-PATENT-CLASS-313-63	c15 N71-27091	NASA-CASE-NPS-13929
	US-PATENT-CLASS-315-111		US-PATENT-APPL-SN-779847
	US-PATENT-3,576,107		US-PATENT-CLASS-152-225
c09 N71-26787	NASA-CASE-XKS-05932		US-PATENT-CLASS-152-250
	US-PATENT-APPL-SN-752729		US-PATENT-3,568,748
	US-PATENT-CLASS-240-11.2	c28 N71-27094	NASA-CASE-GSC-10710-1
	US-PATENT-CLASS-240-11.4		US-PATENT-APPL-SN-828909
	US-PATENT-CLASS-240-51.11		US-PATENT-CLASS-73-117.4
	US-PATENT-CLASS-313-22		US-PATENT-3,572,104
	US-PATENT-3,564,234	c28 N71-27095	NASA-CASE-NPS-20325
c14 N71-26788	NASA-CASE-NPS-20240		US-PATENT-APPL-SN-840176
	US-PATENT-APPL-SN-825259		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-356-203		US-PATENT-3,572,610
	US-PATENT-3,563,668	c10 N71-27126	NASA-CASE-LEW-10233
c09 N71-27001	NASA-CASE-XGS-11177		US-PATENT-APPL-SN-750787
	US-PATENT-APPL-SN-828921		US-PATENT-CLASS-307-253
	US-PATENT-CLASS-317-9		US-PATENT-CLASS-307-300
	US-PATENT-CLASS-317-33		US-PATENT-3,566,158
	US-PATENT-3,571,656	c15 N71-27135	NASA-CASE-HQN-10541-2
c14 N71-27005	NASA-CASE-NPS-20261		US-PATENT-APPL-SN-822088
	US-PATENT-APPL-SN-845990		US-PATENT-CLASS-219-121
	US-PATENT-CLASS-1		US-PATENT-CLASS-331-94.5
	US-PATENT-CLASS-141-258		US-PATENT-3,571,555
	US-PATENT-CLASS-222-49	c10 N71-27136	NASA-CASE-GSC-10065-1
	US-PATENT-CLASS-222-137		US-PATENT-APPL-SN-808462
	US-PATENT-3,568,885		US-PATENT-CLASS-318-571
c15 N71-27006	NASA-CASE-LAR-10083-1		US-PATENT-CLASS-318-653
	US-PATENT-APPL-SN-837825		US-PATENT-3,568,028

ACCESSION NUMBER INDEX

c10 N71-27137	NASA-CASE-XNP-06234 US-PATENT-APPL-SN-723827 US-PATENT-CLASS-235-92 US-PATENT-CLASS-328-49 US-PATENT-3,567,913	c08 N71-27255	NASA-CASE-NPO-12107 US-PATENT-APPL-SN-555189 US-PATENT-CLASS-179-100.2 US-PATENT-CLASS-340-146.1 US-PATENT-CLASS-340-172.5 US-PATENT-3,571,801
c15 N71-27146	NASA-CASE-LAR-10193-1 US-PATENT-APPL-SN-794968 US-PATENT-CLASS-188-1 US-PATENT-CLASS-188-103 US-PATENT-3,568,805	c10 N71-27271	NASA-CASE-XLA-03893 US-PATENT-APPL-SN-779024 US-PATENT-CLASS-331-109 US-PATENT-CLASS-331-117 US-PATENT-CLASS-331-177 US-PATENT-CLASS-332-30 US-PATENT-3,569,866
c15 N71-27147	NASA-CASE-HSC-12121-1 US-PATENT-APPL-SN-783374 US-PATENT-CLASS-91-390 US-PATENT-CLASS-91-461 US-PATENT-3,563,135	c10 N71-27272	NASA-CASE-XLA-08799 US-PATENT-APPL-SN-668242 US-PATENT-CLASS-340-150 US-PATENT-CLASS-340-164 US-PATENT-CLASS-340-166 US-PATENT-CLASS-340-213 US-PATENT-CLASS-340-403 US-PATENT-3,571,800
c15 N71-27169	NASA-CASE-LAR-10106-1 US-PATENT-APPL-SN-810575 US-PATENT-CLASS-188-1 US-PATENT-CLASS-310-51 US-PATENT-3,566,993	c14 N71-27323	NASA-CASE-NPO-10810 US-PATENT-APPL-SN-805405 US-PATENT-CLASS-73-355 US-PATENT-CLASS-250-83.3 US-PATENT-3,566,122
c18 N71-27170	NASA-CASE-XMF-02221 US-PATENT-APPL-SN-430192 US-PATENT-CLASS-252-301.2 US-PATENT-3,567,651	c21 N71-27324	NASA-CASE-GSC-10555-1 US-PATENT-APPL-SN-785620 US-PATENT-CLASS-244-1 US-PATENT-3,567,155
c16 N71-27183	NASA-CASE-HQN-10541-4 US-PATENT-APPL-SN-822090 US-PATENT-CLASS-250-199 US-PATENT-3,575,602	c14 N71-27325	NASA-CASE-GSC-10441-1 US-PATENT-APPL-SN-782544 US-PATENT-CLASS-324-43 US-PATENT-3,571,700
c15 N71-27184	NASA-CASE-XNP-08124 US-PATENT-APPL-SN-697075 US-PATENT-CLASS-75-63 US-PATENT-3,563,727	c12 N71-27332	NASA-CASE-NPO-10416 US-PATENT-APPL-SN-754020 US-PATENT-CLASS-137-81.5 US-PATENT-3,570,513
c14 N71-27185	NASA-CASE-NPO-10556 US-PATENT-APPL-SN-796405 US-PATENT-CLASS-73-71.6 US-PATENT-3,572,089	c14 N71-27334	NASA-CASE-ERC-10087 US-PATENT-APPL-SN-738315 US-PATENT-CLASS-29-588 US-PATENT-3,566,459
c14 N71-27186	NASA-CASE-XMF-03968 US-PATENT-APPL-SN-719029 US-PATENT-CLASS-60-35.6 US-PATENT-CLASS-174-110.3 US-PATENT-CLASS-324-65 US-PATENT-CLASS-340-227 US-PATENT-3,569,828	c10 N71-27338	NASA-CASE-KSC-10020 US-PATENT-APPL-SN-817482 US-PATENT-CLASS-324-103 US-PATENT-CLASS-324-107 US-PATENT-CLASS-324-133 US-PATENT-CLASS-340-248 US-PATENT-3,571,707
c07 N71-27191	NASA-CASE-HFS-20068 US-PATENT-APPL-SN-797795 US-PATENT-CLASS-174-28 US-PATENT-CLASS-333-95 US-PATENT-CLASS-333-96 US-PATENT-CLASS-343-884 US-PATENT-3,569,875	c07 N71-27341	NASA-CASE-NPO-10343 US-PATENT-APPL-SN-750786 US-PATENT-CLASS-178-7.1 US-PATENT-CLASS-178-7.3 US-PATENT-3,566,027
c08 N71-27210	NASA-CASE-GSC-10097-1 US-PATENT-APPL-SN-762957 US-PATENT-CLASS-29-603 US-PATENT-CLASS-179-100.2 US-PATENT-CLASS-340-174.1 US-PATENT-3,566,045	c06 N71-27363	NASA-CASE-HQN-10364 US-PATENT-APPL-SN-713616 US-PATENT-CLASS-260-2 US-PATENT-3,563,918
c15 N71-27214	NASA-CASE-XLA-08911 US-PATENT-APPL-SN-777764 US-PATENT-CLASS-219-229 US-PATENT-CLASS-228-53 US-PATENT-3,575,336	c09 N71-27364	NASA-CASE-ERC-10065 US-PATENT-APPL-SN-777818 US-PATENT-CLASS-321-61 US-PATENT-CLASS-321-64 US-PATENT-CLASS-322-32 US-PATENT-3,571,693
c14 N71-27215	NASA-CASE-LAR-10204 US-PATENT-APPL-SN-766245 US-PATENT-CLASS-235-92 US-PATENT-CLASS-356-106 US-PATENT-3,572,935	c10 N71-27365	NASA-CASE-NPO-10251 US-PATENT-APPL-SN-774265 US-PATENT-CLASS-35-19 US-PATENT-3,570,143
c09 N71-27232	NASA-CASE-NPO-10607 US-PATENT-APPL-SN-799353 US-PATENT-CLASS-250-83 US-PATENT-CLASS-317-230 US-PATENT-CLASS-317-231 US-PATENT-CLASS-317-238 US-PATENT-3,568,010	c10 N71-27366	NASA-CASE-GSC-10114-1 US-PATENT-APPL-SN-796370 US-PATENT-CLASS-317-33 US-PATENT-CLASS-321-12 US-PATENT-3,571,662
c07 N71-27233	NASA-CASE-GSC-10220-1 US-PATENT-APPL-SN-759256 US-PATENT-CLASS-343-777 US-PATENT-CLASS-343-786 US-PATENT-CLASS-343-799 US-PATENT-CLASS-343-840 US-PATENT-CLASS-343-854 US-PATENT-3,569,976	c15 N71-27372	NASA-CASE-NPO-10070 US-PATENT-APPL-SN-780064 US-PATENT-CLASS-23-259 US-PATENT-3,565,584
c05 N71-27234	NASA-CASE-XFR-07172 US-PATENT-APPL-SN-720041 US-PATENT-CLASS-128-2.05 US-PATENT-3,563,232	c18 N71-27397	NASA-CASE-XNP-02500 US-PATENT-APPL-SN-508169 US-PATENT-CLASS-324-58.5 US-PATENT-CLASS-324-61 US-PATENT-3,569,827
c06 N71-27254	NASA-CASE-NPO-10768 US-PATENT-APPL-SN-770398 US-PATENT-CLASS-260-615 US-PATENT-3,574,770	c14 N71-27407	NASA-CASE-GSC-10376-1 US-PATENT-APPL-SN-806226 US-PATENT-CLASS-307-126 US-PATENT-CLASS-323-20 US-PATENT-3,566,143
		c15 N71-27432	NASA-CASE-NPO-10808 US-PATENT-APPL-SN-808192

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-60-243		US-PATENT-3,576,723
	US-PATENT-3,568,447	c18 N71-28729	NASA-CASE-LEW-10219-1
c28 N71-27585	NASA-CASE-MPS-20130		US-PATENT-APPL-SN-785780
	US-PATENT-APPL-SN-809822		US-PATENT-CLASS-148-126
	US-PATENT-CLASS-244-4		US-PATENT-3,579,390
	US-PATENT-3,570,785	c10 N71-28739	NASA-CASE-XNP-01068
c15 N71-27754	NASA-CASE-ARC-10131-1		US-PATENT-APPL-SN-375680
	US-PATENT-APPL-SN-808576		US-PATENT-CLASS-307-88.5
	US-PATENT-CLASS-60-51		US-PATENT-3,271,594
	US-PATENT-CLASS-91-361	c15 N71-28740	NASA-CASE-XLA-09346
	US-PATENT-CLASS-91-390		US-PATENT-APPL-SN-820964
	US-PATENT-CLASS-91-448		US-PATENT-CLASS-73-147
	US-PATENT-3,568,572		US-PATENT-CLASS-356-150
c33 N71-27862	NASA-CASE-MPS-14114		US-PATENT-CLASS-356-152
	US-PATENT-APPL-SN-706013		US-PATENT-CLASS-356-153
	US-PATENT-CLASS-310-4		US-PATENT-3,583,815
	US-PATENT-3,535,562	c12 N71-28741	NASA-CASE-XLE-09341
c09 N71-28421	NASA-CASE-NPO-10412		US-PATENT-APPL-SN-780065
	US-PATENT-APPL-SN-768470		US-PATENT-CLASS-137-81.5
	US-PATENT-CLASS-310-4		US-PATENT-3,583,419
	US-PATENT-3,578,992	c17 N71-28747	NASA-CASE-XNP-08881
c07 N71-28429	NASA-CASE-NSC-13201-1		US-PATENT-APPL-SN-732922
	US-PATENT-APPL-SN-789903		US-PATENT-CLASS-161-89
	US-PATENT-CLASS-332-29		US-PATENT-3,579,412
	US-PATENT-CLASS-332-30	c22 N71-28759	NASA-CASE-LEW-10250-1
	US-PATENT-3,579,147		US-PATENT-APPL-SN-732455
c07 N71-28430	NASA-CASE-GSC-10668-1		US-PATENT-CLASS-176-45
	US-PATENT-APPL-SN-743525		US-PATENT-3,574,057
	US-PATENT-CLASS-307-296	c11 N71-28779	NASA-CASE-XNP-00250
	US-PATENT-CLASS-325-185		US-PATENT-APPL-SN-212497
	US-PATENT-CLASS-330-40		US-PATENT-CLASS-181-.5
	US-PATENT-CLASS-330-124		US-PATENT-3,260,326
	US-PATENT-CLASS-330-200	c10 N71-28783	NASA-CASE-XMS-02182
	US-PATENT-3,577,092		US-PATENT-APPL-SN-516153
c15 N71-28465	NASA-CASE-ERC-10097		US-PATENT-CLASS-317-100
	US-PATENT-APPL-SN-797059		US-PATENT-3,317,797
	US-PATENT-CLASS-308-170	c06 N71-28807	NASA-CASE-XMP-08674
	US-PATENT-3,583,777		US-PATENT-APPL-SN-617775
c15 N71-28467	NASA-CASE-NPO-10646		US-PATENT-CLASS-260-47
	US-PATENT-APPL-SN-813488		US-PATENT-3,370,039
	US-PATENT-CLASS-64-18	c06 N71-28808	NASA-CASE-XNP-04023
	US-PATENT-3,574,277		US-PATENT-APPL-SN-470902
c09 N71-28468	NASA-CASE-ARC-10137-1		US-PATENT-CLASS-260-429
	US-PATENT-APPL-SN-799013		US-PATENT-3,396,184
	US-PATENT-CLASS-307-265	c07 N71-28809	NASA-CASE-XGS-02290
	US-PATENT-CLASS-307-273		US-PATENT-APPL-SN-544895
	US-PATENT-CLASS-307-288		US-PATENT-CLASS-343-771
	US-PATENT-CLASS-328-207		US-PATENT-3,417,400
	US-PATENT-3,584,311	c09 N71-28810	NASA-CASE-XNP-03916
c16 N71-28554	NASA-CASE-XGS-10518		US-PATENT-APPL-SN-535304
	US-PATENT-APPL-SN-764470		US-PATENT-CLASS-331-113
	US-PATENT-CLASS-335-216		US-PATENT-3,325,749
	US-PATENT-3,541,486	c28 N71-28849	NASA-CASE-XMS-04826
c03 N71-28579	NASA-CASE-LEW-11359		US-PATENT-APPL-SN-521755
	US-PATENT-APPL-SN-787911		US-PATENT-CLASS-60-258
	US-PATENT-CLASS-136-83		US-PATENT-3,318,096
	US-PATENT-3,573,986	c28 N71-28850	NASA-CASE-XNP-01954
c15 N71-28582	NASA-CASE-LEW-10278-1		US-PATENT-APPL-SN-372730
	US-PATENT-APPL-SN-760928		US-PATENT-CLASS-313-230
	US-PATENT-CLASS-117-224		US-PATENT-3,328,624
	US-PATENT-3,573,977	c31 N71-28851	NASA-CASE-XMS-06162
c09 N71-28618	NASA-CASE-ERC-10098		US-PATENT-APPL-SN-610724
	US-PATENT-APPL-SN-779169		US-PATENT-CLASS-244-138
	US-PATENT-CLASS-178-5.2R		US-PATENT-3,330,510
	US-PATENT-CLASS-178-54CP	c33 N71-28852	NASA-CASE-XNP-01310
	US-PATENT-CLASS-178-54PE		US-PATENT-APPL-SN-379771
	US-PATENT-3,582,960		US-PATENT-CLASS-60-266
c05 N71-28619	NASA-CASE-ARC-10153		US-PATENT-3,279,193
	US-PATENT-APPL-SN-783377	c10 N71-28859	NASA-CASE-XNP-01107
	US-PATENT-CLASS-35-29		US-PATENT-APPL-SN-384010
	US-PATENT-CLASS-104-1		US-PATENT-CLASS-330-51
	US-PATENT-CLASS-104-139		US-PATENT-3,389,346
	US-PATENT-CLASS-119-96	c10 N71-28860	NASA-CASE-NSC-13492-1
	US-PATENT-CLASS-238-1		US-PATENT-APPL-SN-53156
	US-PATENT-CLASS-248-361		US-PATENT-CLASS-307-215
	US-PATENT-CLASS-272-70		US-PATENT-CLASS-307-265
	US-PATENT-3,583,322		US-PATENT-CLASS-307-273
c06 N71-28620	NASA-CASE-NPO-10701		US-PATENT-CLASS-328-92
	US-PATENT-APPL-SN-763355		US-PATENT-CLASS-328-207
	US-PATENT-CLASS-260-47		US-PATENT-3,577,014
	US-PATENT-3,576,786	c14 N71-28863	NASA-CASE-ERC-10014
c11 N71-28629	NASA-CASE-KSC-10198		US-PATENT-APPL-SN-815367
	US-PATENT-APPL-SN-845971		US-PATENT-CLASS-250-41.9
	US-PATENT-CLASS-73-15		US-PATENT-CLASS-250-49.5
	US-PATENT-CLASS-73-432		US-PATENT-3,567,927
	US-PATENT-3,578,756	c09 N71-28886	NASA-CASE-MPS-14610
c09 N71-28691	NASA-CASE-MPS-13687		US-PATENT-APPL-SN-885571
	US-PATENT-APPL-SN-723488		US-PATENT-CLASS-318-317
	US-PATENT-CLASS-204-30		US-PATENT-CLASS-318-331

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-318-345	c14 N71-28991	NASA-CASE-XLA-06713
	US-PATENT-CLASS-318-504		US-PATENT-APPL-SN-863913
	US-PATENT-3,573,583		US-PATENT-CLASS-324-5
c33 N71-28892	NASA-CASE-XNP-05046		US-PATENT-CLASS-324-73
	US-PATENT-APPL-SN-559350		US-PATENT-CLASS-340-347AD
	US-PATENT-CLASS-62-45		US-PATENT-3,579,103
	US-PATENT-3,365,897	c14 N71-28992	NASA-CASE-ERC-10150
c07 N71-28900	NASA-CASE-XNP-02389		US-PATENT-APPL-SN-822519
	US-PATENT-APPL-SN-516162		US-PATENT-CLASS-73-40.7
	US-PATENT-CLASS-343-100		US-PATENT-CLASS-250-41.95
	US-PATENT-3,331,071		US-PATENT-3,578,758
c33 N71-28903	NASA-CASE-XLA-01745	c14 N71-28993	NASA-CASE-NPS-20044
	US-PATENT-APPL-SN-538907		US-PATENT-APPL-SN-838630
	US-PATENT-CLASS-244-1		US-PATENT-CLASS-250-219
	US-PATENT-3,409,247		US-PATENT-CLASS-356-209
c28 N71-28915	NASA-CASE-LEW-10286-1		US-PATENT-3,574,470
	US-PATENT-APPL-SN-839994	c14 N71-28994	NASA-CASE-XER-11203
	US-PATENT-CLASS-60-39.36		US-PATENT-APPL-SN-815366
	US-PATENT-CLASS-60-39.66		US-PATENT-CLASS-250-218
	US-PATENT-CLASS-431-35		US-PATENT-CLASS-356-103
	US-PATENT-3,581,49		US-PATENT-3,578,867
c08 N71-28925	NASA-CASE-XNP-0101	c09 N71-29008	NASA-CASE-MSC-11277
	US-PATENT-APPL-SN-3693		US-PATENT-APPL-SN-771759
	US-PATENT-CLASS-340-1		US-PATENT-CLASS-317-33
	US-PATENT-3,394,3		US-PATENT-CLASS-317-54
c09 N71-28926	NASA-CASE-XMS-03542		US-PATENT-CLASS-317-60
	US-PATENT-APPL-SN-482952		US-PATENT-CLASS-317-155.5
	US-PATENT-CLASS-307-263		US-PATENT-3,579,041
	US-PATENT-3,364,366	c15 N71-29018	NASA-CASE-XLA-08916
c28 N71-28928	NASA-CASE-XNP-00816		US-PATENT-APPL-SN-777765
	US-PATENT-APPL-SN-235588		US-PATENT-CLASS-29-421
	US-PATENT-CLASS-253-77		US-PATENT-3,583,058
	US-PATENT-3,202,398	c15 N71-29032	NASA-CASE-XNP-05999
c27 N71-28929	NASA-CASE-XNP-00650		US-PATENT-APPL-SN-752946
	US-PATENT-APPL-SN-271823		US-PATENT-CLASS-117-212
	US-PATENT-CLASS-60-39.48		US-PATENT-3,576,669
	US-PATENT-3,170,295	c08 N71-29033	NASA-CASE-GSC-10554-1
c14 N71-28933	NASA-CASE-XLA-08913		US-PATENT-APPL-SN-828984
	US-PATENT-APPL-SN-865109		US-PATENT-CLASS-235-150.1
	US-PATENT-CLASS-204-263		US-PATENT-CLASS-235-150.2
	US-PATENT-3,578,084		US-PATENT-CLASS-235-150.27
c14 N71-28935	NASA-CASE-LAR-10686		US-PATENT-CLASS-235-151.1
	US-PATENT-APPL-SN-280362		US-PATENT-3,578,957
	US-PATENT-CLASS-226-58	c08 N71-29034	NASA-CASE-NPO-11088
	US-PATENT-3,298,582		US-PATENT-APPL-SN-887701
c15 N71-28936	NASA-CASE-XMS-10993		US-PATENT-CLASS-307-207
	US-PATENT-APPL-SN-660573		US-PATENT-CLASS-307-222
	US-PATENT-CLASS-244-1		US-PATENT-CLASS-328-44
	US-PATENT-3,389,877		US-PATENT-CLASS-328-167
c15 N71-28937	NASA-CASE-XNP-01855		US-PATENT-3,579,122
	US-PATENT-APPL-SN-408435	c09 N71-29035	NASA-CASE-LEW-10155-1
	US-PATENT-CLASS-285-45		US-PATENT-APPL-SN-889387
	US-PATENT-3,219,365		US-PATENT-CLASS-337-114
c15 N71-28951	NASA-CASE-XNP-02278		US-PATENT-CLASS-337-121
	US-PATENT-APPL-SN-11853		US-PATENT-3,579,168
	US-PATENT-CLASS-60-35.55	c18 N71-29040	NASA-CASE-XLE-10910
	US-PATENT-3,132,479		US-PATENT-APPL-SN-751061
c15 N71-28952	NASA-CASE-XAC-00001		US-PATENT-CLASS-148-6
	US-PATENT-APPL-SN-612568		US-PATENT-3,573,996
	US-PATENT-CLASS-318-31	c14 N71-29041	NASA-CASE-XLA-10402
	US-PATENT-2,837,706		US-PATENT-APPL-SN-762935
c14 N71-28958	NASA-CASE-XNP-02792		US-PATENT-CLASS-356-76
	US-PATENT-APPL-SN-262596		US-PATENT-3,574,462
	US-PATENT-CLASS-219-413	c03 N71-29044	NASA-CASE-XMS-02063
	US-PATENT-3,197,616		US-PATENT-APPL-SN-422096
c15 N71-28959	NASA-CASE-XNP-01848		US-PATENT-CLASS-136-86
	US-PATENT-APPL-SN-359532		US-PATENT-3,382,105
	US-PATENT-CLASS-64-27	c33 N71-29046	NASA-CASE-XHQ-03673
	US-PATENT-3,236,066		US-PATENT-APPL-SN-559055
c10 N71-28960	NASA-CASE-XNP-00745		US-PATENT-CLASS-165-86
	US-PATENT-APPL-SN-314570		US-PATENT-3,347,309
	US-PATENT-CLASS-328-67	c23 N71-29049	NASA-CASE-XNP-06503
	US-PATENT-3,252,100		US-PATENT-APPL-SN-370989
c16 N71-28963	NASA-CASE-XLA-01090		US-PATENT-CLASS-335-216
	US-PATENT-APPL-SN-274065		US-PATENT-3,273,094
	US-PATENT-CLASS-250-199	c31 N71-29050	NASA-CASE-RQN-00936
	US-PATENT-3,215,842		US-PATENT-APPL-SN-862921
c07 N71-28965	NASA-CASE-GSC-10949-1		US-PATENT-CLASS-244-1
	US-PATENT-APPL-SN-94369		US-PATENT-3,396,920
c07 N71-28979	NASA-CASE-RQN-00937	c33 N71-29051	NASA-CASE-XNP-04208
	US-PATENT-APPL-SN-343760		US-PATENT-APPL-SN-428887
	US-PATENT-CLASS-343-823		US-PATENT-CLASS-73-190
	US-PATENT-3,299,431		US-PATENT-3,372,588
c07 N71-28980	NASA-CASE-XLA-10772	c33 N71-29052	NASA-CASE-MSC-12389
	US-PATENT-APPL-SN-887700		US-PATENT-APPL-SN-229286
	US-PATENT-CLASS-343-708		US-PATENT-CLASS-165-47
	US-PATENT-CLASS-343-784		US-PATENT-3,212,564
	US-PATENT-CLASS-343-872	c33 N71-29053	NASA-CASE-RQN-00938
	US-PATENT-3,579,242		US-PATENT-APPL-SN-300957

ACCESSION NUMBER INDEX

c07 N71-29065	US-PATENT-CLASS-60-267	c28 N71-29154	NASA-CASE-XLE-00155
	US-PATENT-3,298,175		US-PATENT-APPL-SN-388600
	NASA-CASE-ERC-10011		US-PATENT-CLASS-253-77
	US-PATENT-APPL-SN-802818		US-PATENT-2,997,274
c23 N71-29123	US-PATENT-CLASS-333-81	c27 N71-29155	NASA-CASE-HSC-12390
	US-PATENT-CLASS-350-1		US-PATENT-APPL-SN-231520
	US-PATENT-CLASS-350-286		US-PATENT-CLASS-222-61
	US-PATENT-3,574,438		US-PATENT-3,286,882
c23 N71-29123	NASA-CASE-XNP-08907	c26 N71-29156	NASA-CASE-XNP-01961
	US-PATENT-APPL-SN-824042		US-PATENT-APPL-SN-442835
	US-PATENT-CLASS-350-102		US-PATENT-CLASS-148-174
	US-PATENT-CLASS-350-288		US-PATENT-3,397,094
c23 N71-29125	US-PATENT-CLASS-350-310	c25 N71-29184	NASA-CASE-XLA-00327
	US-PATENT-3,574,448		US-PATENT-APPL-SN-199199
	NASA-CASE-NPO-11087		US-PATENT-CLASS-315-111
	US-PATENT-APPL-SN-840359		US-PATENT-3,238,413
c02 N71-29128	US-PATENT-CLASS-331-94.5	c14 N71-30026	NASA-CASE-HFS-20096
	US-PATENT-CLASS-356-153		US-PATENT-APPL-SN-435433
	US-PATENT-3,574,467		US-PATENT-CLASS-73-432
	NASA-CASE-XAC-00048		US-PATENT-3,396,584
c03 N71-29129	US-PATENT-APPL-SN-765264	c23 N71-30027	NASA-CASE-GSC-10700
	US-PATENT-CLASS-121-38		US-PATENT-APPL-SN-311387
	US-PATENT-2,898,889		US-PATENT-CLASS-350-2
	NASA-CASE-XGS-01674		US-PATENT-3,394,975
c16 N71-29131	US-PATENT-APPL-SN-248985	c15 N71-30028	NASA-CASE-HFS-20830
	US-PATENT-CLASS-320-13		US-PATENT-APPL-SN-286620
	US-PATENT-3,118,100		US-PATENT-3,262,395
	NASA-CASE-ERC-10151	c14 N71-30265	NASA-CASE-HQN-10780
c15 N71-29132	US-PATENT-APPL-SN-853856		US-PATENT-APPL-SN-247136
	US-PATENT-CLASS-350-3.5		US-PATENT-CLASS-73-497
	US-PATENT-3,578,838		US-PATENT-3,270,565
	NASA-CASE-NPO-10431	c23 N71-30292	NASA-CASE-HQN-10781
c15 N71-29133	US-PATENT-APPL-SN-865329		US-PATENT-APPL-SN-86018
	US-PATENT-CLASS-73-49.8		US-PATENT-3,239,660
	US-PATENT-3,583,239	c18 N71-31140	NASA-CASE-NPO-11433
	NASA-CASE-HFS-20453		US-PATENT-APPL-SN-111123
c14 N71-29134	US-PATENT-APPL-SN-885594	c07 N71-33108	NASA-CASE-KSC-10164
	US-PATENT-CLASS-29-278R		US-PATENT-APPL-SN-782955
	US-PATENT-CLASS-81-3R		US-PATENT-CLASS-179-1R
	US-PATENT-CLASS-294-15		US-PATENT-CLASS-179-1VC
c10 N71-29135	US-PATENT-CLASS-339-17R	c09 N71-33109	US-PATENT-3,588,359
	US-PATENT-3,583,744		NASA-CASE-ARC-10101-1
	NASA-CASE-HFS-11204		US-PATENT-APPL-SN-793823
	US-PATENT-APPL-SN-845991		US-PATENT-CLASS-307-251
c15 N71-29136	US-PATENT-CLASS-73-1R		US-PATENT-CLASS-307-261
	US-PATENT-CLASS-73-304C		US-PATENT-CLASS-321-47
	US-PATENT-3,578,755		US-PATENT-3,588,671
	NASA-CASE-GSC-10564	c08 N71-33110	NASA-CASE-GSC-10186
c17 N71-29137	US-PATENT-APPL-SN-292596		US-PATENT-APPL-SN-713188
	US-PATENT-CLASS-340-174		US-PATENT-CLASS-235-164
	US-PATENT-3,348,218		US-PATENT-CLASS-235-175
	NASA-CASE-XLA-00013	c10 N71-33129	US-PATENT-3,588,483
c08 N71-29138	US-PATENT-APPL-SN-579121		NASA-CASE-GSC-10667-1
	US-PATENT-CLASS-308-177		US-PATENT-APPL-SN-749548
	US-PATENT-2,903,307		US-PATENT-CLASS-330-11
	NASA-CASE-XNP-04339		US-PATENT-CLASS-330-16
c09 N71-29139	US-PATENT-APPL-SN-451596		US-PATENT-CLASS-330-24
	US-PATENT-CLASS-264-111		US-PATENT-3,585,514
	US-PATENT-3,413,393	c31 N71-33160	NASA-CASE-XLA-04063
	NASA-CASE-ERC-10041		US-PATENT-APPL-SN-802948
c33 N71-29151	US-PATENT-APPL-SN-889478		US-PATENT-CLASS-179-1
	US-PATENT-CLASS-307-234		US-PATENT-CLASS-244-1
	US-PATENT-CLASS-307-265		US-PATENT-CLASS-244-83
	US-PATENT-CLASS-324-106		US-PATENT-3,586,261
c33 N71-29152	US-PATENT-CLASS-328-58	c23 N71-33229	NASA-CASE-NPO-10468
	US-PATENT-CLASS-332-9R		US-PATENT-APPL-SN-787846
	US-PATENT-CLASS-332-10		US-PATENT-CLASS-350-55
	US-PATENT-3,579,146		US-PATENT-CLASS-350-310
c28 N71-29153	NASA-CASE-XLA-07788	c10 N71-33407	US-PATENT-3,588,220
	US-PATENT-APPL-SN-874732		NASA-CASE-NPO-10342
	US-PATENT-CLASS-307-215		US-PATENT-APPL-SN-704446
	US-PATENT-CLASS-307-247		US-PATENT-CLASS-178-69.5
c33 N71-29153	US-PATENT-CLASS-307-265		US-PATENT-CLASS-179-158S
	US-PATENT-CLASS-307-273		US-PATENT-CLASS-340-347DD
	US-PATENT-CLASS-307-294		US-PATENT-3,588,883
	US-PATENT-CLASS-328-207	c17 N71-33408	NASA-CASE-LEW-10327
c33 N71-29154	US-PATENT-3,578,988		US-PATENT-APPL-SN-772006
	NASA-CASE-XLE-00035		US-PATENT-CLASS-148-6.3
	US-PATENT-APPL-SN-575291		US-PATENT-3,591,426
	US-PATENT-CLASS-204-37	c03 N71-33409	NASA-CASE-ARC-10050
c33 N71-29155	US-PATENT-2,926,123		US-PATENT-APPL-SN-797219
	NASA-CASE-XLE-00027		US-PATENT-CLASS-136-89
	US-PATENT-APPL-SN-529594		US-PATENT-3,591,420
	US-PATENT-CLASS-253-39.1	c16 N71-33410	NASA-CASE-NPO-10417
c28 N71-29156	US-PATENT-2,956,772		US-PATENT-APPL-SN-753974
	NASA-CASE-HFS-20831		US-PATENT-CLASS-95-11
	US-PATENT-APPL-SN-238421		US-PATENT-CLASS-331-94.5
	US-PATENT-CLASS-60-35.54		US-PATENT-CLASS-352-84
c28 N71-29157	US-PATENT-3,212,259		US-PATENT-3,587,424

ACCESSION NUMBER INDEX

c15 N71-33518	NASA-CASE-XLA-03661 US-PATENT-APPL-SN-751266 US-PATENT-CLASS-90-11 US-PATENT-CLASS-408-137 US-PATENT-3,585,882	c07 N72-11150	NASA-CASE-NPO-11064 US-PATENT-APPL-SN-880248 US-PATENT-CLASS-331-7 US-PATENT-CLASS-331-10 US-PATENT-CLASS-331-34 US-PATENT-CLASS-331-66 US-PATENT-3,593,180
c09 N71-33519	NASA-CASE-ERC-10100 US-PATENT-APPL-SN-766697 US-PATENT-CLASS-313-109.5 US-PATENT-CLASS-313-231 US-PATENT-CLASS-315-108 US-PATENT-CLASS-315-111 US-PATENT-CLASS-340-324 US-PATENT-CLASS-340-336 US-PATENT-3,588,874	c08 N72-11171	NASA-CASE-NPO-10769 US-PATENT-APPL-SN-813494 US-PATENT-CLASS-179-15.55R US-PATENT-3,598,921
c07 N71-33606	NASA-CASE-NPO-11031 US-PATENT-APPL-SN-864097 US-PATENT-CLASS-333-6 US-PATENT-CLASS-333-7 US-PATENT-CLASS-333-21A US-PATENT-3,588,751	c08 N72-11172	NASA-CASE-GSC-10880-1 US-PATENT-APPL-SN-831118 US-PATENT-CLASS-33-15A US-PATENT-CLASS-33-204C US-PATENT-CLASS-235-61NR US-PATENT-3,599,335
c11 N71-33612	NASA-CASE-XLA-09480 US-PATENT-APPL-SN-874435 US-PATENT-CLASS-73-147 US-PATENT-3,587,306	c09 N72-11224	NASA-CASE-GSC-10614-1 US-PATENT-APPL-SN-822534 US-PATENT-CLASS-179-100-2CA US-PATENT-CLASS-179-100-2ND US-PATENT-CLASS-274-4R US-PATENT-3,592,478
c07 N71-33613	NASA-CASE-NPO-10700 US-PATENT-APPL-SN-840308 US-PATENT-CLASS-318-227 US-PATENT-CLASS-318-230 US-PATENT-3,588,648	c09 N72-11225	NASA-CASE-KSC-10162 US-PATENT-APPL-SN-817481 US-PATENT-CLASS-324-102 US-PATENT-CLASS-324-119 US-PATENT-CLASS-324-123B US-PATENT-3,593,132
c07 N71-33696	NASA-CASE-HSC-12165-1 US-PATENT-APPL-SN-875849 US-PATENT-CLASS-325-347 US-PATENT-CLASS-325-348 US-PATENT-CLASS-325-473 US-PATENT-CLASS-325-478 US-PATENT-CLASS-325-480 US-PATENT-CLASS-325-482 US-PATENT-CLASS-328-164 US-PATENT-CLASS-328-165 US-PATENT-CLASS-329-145 US-PATENT-3,588,705	c10 N72-11256	NASA-CASE-ABC-10042-2 US-PATENT-APPL-SN-33159 US-PATENT-CLASS-330-107 US-PATENT-CLASS-330-109 US-PATENT-3,593,175
c03 N71-34044	NASA-CASE-NPO-11190 US-PATENT-APPL-SN-115944	c14 N72-11363	NASA-CASE-HSC-11847-1 US-PATENT-APPL-SN-8497 US-PATENT-CLASS-73-149 US-PATENT-CLASS-73-290B US-PATENT-3,596,510
c09 N71-34212	NASA-CASE-HFS-20935 US-PATENT-APPL-SN-136007	c14 N72-11364	NASA-CASE-NPO-10778 US-PATENT-APPL-SN-865909 US-PATENT-CLASS-33-125 US-PATENT-CLASS-73-95 US-PATENT-CLASS-250-235 US-PATENT-CLASS-356-32 US-PATENT-CLASS-356-167 US-PATENT-3,592,545
c14 N71-34389	NASA-CASE-HQN-10683 US-PATENT-APPL-SN-146217	c14 N72-11365	NASA-CASE-HFS-20485 US-PATENT-APPL-SN-22320 US-PATENT-CLASS-73-194P US-PATENT-CLASS-250-43.5PC US-PATENT-3,599,489
c15 N71-34425	NASA-CASE-NPO-10811 US-PATENT-APPL-SN-129074	c15 N72-11385	NASA-CASE-HFS-18495 US-PATENT-APPL-SN-38814 US-PATENT-CLASS-24-211N US-PATENT-CLASS-85-5B US-PATENT-3,596,554
c06 N72-10138	NASA-CASE-HQN-10537-1 US-PATENT-APPL-SN-112366	c15 N72-11386	NASA-CASE-HFS-20249 US-PATENT-APPL-SN-794530 US-PATENT-CLASS-33-72 US-PATENT-CLASS-248-183 US-PATENT-CLASS-248-278 US-PATENT-CLASS-248-487 US-PATENT-CLASS-350-285 US-PATENT-CLASS-350-287 US-PATENT-3,596,863
c14 N72-10375	NASA-CASE-GSC-11095-1 US-PATENT-APPL-SN-147940	c15 N72-11387	NASA-CASE-XMF-09902 US-PATENT-APPL-SN-769665 US-PATENT-CLASS-75-20P US-PATENT-3,592,628
c02 N72-11018	NASA-CASE-LAR-10557 US-PATENT-APPL-SN-853746 US-PATENT-CLASS-416-115 US-PATENT-CLASS-416-121 US-PATENT-CLASS-416-127 US-PATENT-CLASS-416-130 US-PATENT-CLASS-416-149 US-PATENT-CLASS-416-200 US-PATENT-3,592,559	c15 N72-11388	NASA-CASE-HFS-20423 US-PATENT-APPL-SN-865298 US-PATENT-CLASS-212-134 US-PATENT-CLASS-308-5 US-PATENT-3,600,046
c03 N72-11062	NASA-CASE-IGS-04047-2 US-PATENT-APPL-SN-843251 US-PATENT-CLASS-136-206 US-PATENT-3,597,281	c15 N72-11389	NASA-CASE-XLA-05056 US-PATENT-APPL-SN-596733 US-PATENT-CLASS-210-445 US-PATENT-3,592,768
c05 N72-11084	NASA-CASE-NPO-10677 US-PATENT-APPL-SN-868530 US-PATENT-CLASS-62-56 US-PATENT-CLASS-62-467 US-PATENT-3,599,443	c15 N72-11390	NASA-CASE-HFS-18100 US-PATENT-APPL-SN-784055 US-PATENT-CLASS-15-143 US-PATENT-CLASS-15-210 US-PATENT-3,591,885
c05 N72-11085	NASA-CASE-HSC-13140 US-PATENT-APPL-SN-796358 US-PATENT-CLASS-5-69 US-PATENT-CLASS-285-410 US-PATENT-CLASS-297-68 US-PATENT-CLASS-297-232 US-PATENT-3,592,505	c15 N72-11391	NASA-CASE-NPO-11012 US-PATENT-APPL-SN-845807
c07 N72-11148	NASA-CASE-NPO-10301 US-PATENT-APPL-SN-848810 US-PATENT-CLASS-343-771 US-PATENT-CLASS-343-853 US-PATENT-3,599,216		
c07 N72-11149	NASA-CASE-GSC-10390-1 US-PATENT-APPL-SN-749121 US-PATENT-CLASS-325-4 US-PATENT-CLASS-325-39 US-PATENT-CLASS-325-58 US-PATENT-CLASS-343-5DP		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-248-18		US-PATENT-3,607,401
	US-PATENT-CLASS-248-20	c05 N72-16015	NASA-CASE-KSC-10278
	US-PATENT-3,592,422		US-PATENT-APPL-SN-856327
c15 N72-11392	NASA-CASE-MFS-20299		US-PATENT-CLASS-35-8
	US-PATENT-APPL-SN-889437		US-PATENT-CLASS-324-66
	US-PATENT-CLASS-156-66		US-PATENT-CLASS-340-279
	US-PATENT-CLASS-156-320		US-PATENT-3,609,740
	US-PATENT-CLASS-219-221	c10 N72-16172	NASA-CASE-ABC-10269-1
	US-PATENT-CLASS-219-243		US-PATENT-APPL-SN-56791
	US-PATENT-3,593,001		US-PATENT-CLASS-307-230
c16 N72-11415	NASA-CASE-MFS-20687		US-PATENT-CLASS-307-262
	US-PATENT-APPL-SN-143509		US-PATENT-CLASS-328-155
c23 N72-11568	NASA-CASE-GSC-11133-1		US-PATENT-3,614,475
	US-PATENT-APPL-SN-121328	c14 N72-16282	NASA-CASE-IAR-10913
c24 N72-11595	NASA-CASE-MFS-20095		US-PATENT-APPL-SN-779160
	US-PATENT-APPL-SN-855004		US-PATENT-CLASS-73-12
	US-PATENT-CLASS-250-49.5B		US-PATENT-3,605,482
	US-PATENT-CLASS-250-49.5TE	c14 N72-16283	NASA-CASE-GSC-10780-1
	US-PATENT-CLASS-250-51		US-PATENT-APPL-SN-860493
	US-PATENT-CLASS-250-52		US-PATENT-CLASS-82-24R
	US-PATENT-3,593,024		US-PATENT-3,608,409
c28 N72-11708	NASA-CASE-MFS-20619	c15 N72-16329	NASA-CASE-XLA-07829
	US-PATENT-APPL-SN-18982		US-PATENT-APPL-SN-763684
	US-PATENT-CLASS-60-271		US-PATENT-CLASS-264-DIG.44
	US-PATENT-CLASS-139-425R		US-PATENT-CLASS-264-221
	US-PATENT-CLASS-239-265.19		US-PATENT-CLASS-264-225
	US-PATENT-CLASS-239-265.43		US-PATENT-CLASS-264-227
	US-PATENT-3,596,465		US-PATENT-3,608,046
c28 N72-11709	NASA-CASE-NPO-10737	c15 N72-16330	NASA-CASE-IAR-10203-1
	US-PATENT-APPL-SN-760114		US-PATENT-APPL-SN-769592
	US-PATENT-CLASS-60-39-48		US-PATENT-CLASS-156-84
	US-PATENT-CLASS-60-202		US-PATENT-CLASS-156-86
	US-PATENT-3,591,967		US-PATENT-3,607,495
c07 N72-12080	NASA-CASE-GSC-10087-3	c06 N72-17093	NASA-CASE-LEW-10794-1
	US-PATENT-APPL-SN-880885		US-PATENT-APPL-SN-33535
	US-PATENT-CLASS-325-4		US-PATENT-CLASS-23-55
	US-PATENT-CLASS-343-6.5R		US-PATENT-CLASS-23-88
	US-PATENT-CLASS-343-6.8R		US-PATENT-CLASS-23-97
	US-PATENT-3,594,790		US-PATENT-3,607,015
c07 N72-12081	NASA-CASE-GSC-10185-1	c06 N72-17094	NASA-CASE-NPO-10234
	US-PATENT-APPL-SN-733039		US-PATENT-APPL-SN-800204
	US-PATENT-CLASS-178-DIG.12		US-PATENT-CLASS-23-230R
	US-PATENT-CLASS-178-6		US-PATENT-CLASS-23-232C
	US-PATENT-CLASS-178-7.3		US-PATENT-CLASS-23-253PC
	US-PATENT-CLASS-325-10		US-PATENT-CLASS-73-23.1
	US-PATENT-CLASS-325-13		US-PATENT-3,607,076
	US-PATENT-3,588,331	c06 N72-17095	NASA-CASE-NPO-10774
c09 N72-12136	NASA-CASE-XER-09521		US-PATENT-APPL-SN-848805
	US-PATENT-APPL-SN-771530		US-PATENT-CLASS-23-201
	US-PATENT-CLASS-136-202		US-PATENT-CLASS-23-230
	US-PATENT-CLASS-136-206		US-PATENT-CLASS-23-253
	US-PATENT-CLASS-136-227		US-PATENT-CLASS-73-76
	US-PATENT-CLASS-343-DIG.3		US-PATENT-3,607,080
	US-PATENT-CLASS-343-720	c07 N72-17109	NASA-CASE-HSC-12146-1
	US-PATENT-CLASS-343-840		US-PATENT-APPL-SN-50206
	US-PATENT-3,594,803		US-PATENT-CLASS-178-5.2R
c15 N72-12408	NASA-CASE-XLA-05966		US-PATENT-CLASS-178-5.4
	US-PATENT-APPL-SN-784544		US-PATENT-CLASS-178-6.7
	US-PATENT-CLASS-72-307		US-PATENT-3,603,722
	US-PATENT-CLASS-140-105	c09 N72-17152	NASA-CASE-ARC-10178-1
	US-PATENT-3,584,660		US-PATENT-APPL-SN-47443
c15 N72-12409	NASA-CASE-NPO-10637		US-PATENT-CLASS-250-211J
	US-PATENT-APPL-SN-851298		US-PATENT-3,603,798
	US-PATENT-CLASS-60-23	c09 N72-17153	NASA-CASE-ARC-10105
	US-PATENT-CLASS-236-68		US-PATENT-APPL-SN-887698
	US-PATENT-CLASS-337-75		US-PATENT-CLASS-128-2.1A
	US-PATENT-CLASS-337-354		US-PATENT-CLASS-307-252F
	US-PATENT-CLASS-337-359		US-PATENT-CLASS-307-252J
	US-PATENT-3,591,960		US-PATENT-CLASS-325-492
c16 N72-12440	NASA-CASE-MFS-20180		US-PATENT-CLASS-340-177
	US-PATENT-APPL-SN-863276		US-PATENT-3,603,946
	US-PATENT-CLASS-331-94.5	c09 N72-17154	NASA-CASE-ERC-10139
	US-PATENT-CLASS-350-1		US-PATENT-APPL-SN-889555
	US-PATENT-CLASS-350-312		US-PATENT-CLASS-321-10
	US-PATENT-3,593,194		US-PATENT-CLASS-336-178
c16 N72-13437	NASA-CASE-MFS-20125		US-PATENT-3,603,864
	US-PATENT-APPL-SN-830366	c09 N72-17155	NASA-CASE-NPO-11023
	US-PATENT-CLASS-178-DIG.21		US-PATENT-APPL-SN-865274
	US-PATENT-CLASS-178-6		US-PATENT-CLASS-330-18
	US-PATENT-CLASS-250-203X		US-PATENT-CLASS-330-40
	US-PATENT-CLASS-356-152		US-PATENT-3,603,892
	US-PATENT-3,603,686	c09 N72-17156	NASA-CASE-NPO-10199
c05 N72-15098	NASA-CASE-HSC-13917-1		US-PATENT-APPL-SN-739391
	US-PATENT-APPL-SN-198355		US-PATENT-CLASS-178-7.1
c03 N72-15986	NASA-CASE-XGS-10010		US-PATENT-CLASS-330-11
	US-PATENT-APPL-SN-729299		US-PATENT-CLASS-330-35
	US-PATENT-CLASS-136-6		US-PATENT-3,609,230
	US-PATENT-CLASS-136-133	c09 N72-17157	NASA-CASE-NPO-11253
	US-PATENT-CLASS-136-135		US-PATENT-APPL-SN-21906

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-307-81		US-PATENT-CLASS-248-14
	US-PATENT-CLASS-307-223		US-PATENT-3,606,979
	US-PATENT-CLASS-307-227	c15 N72-17455	NASA-CASE-NPO-11140
	US-PATENT-CLASS-328-186		US-PATENT-APPL-SN-15019
	US-PATENT-3,609,387		US-PATENT-CLASS-89-1.811
c10 N72-17171	NASA-CASE-XAC-05462-2		US-PATENT-CLASS-174-84
	US-PATENT-APPL-SN-28235		US-PATENT-CLASS-200-64
	US-PATENT-CLASS-307-295		US-PATENT-CLASS-339-46
	US-PATENT-CLASS-328-167		US-PATENT-CLASS-339-176H
	US-PATENT-CLASS-330-109		US-PATENT-CLASS-339-278H
	US-PATENT-CLASS-330-176		US-PATENT-3,611,274
	US-PATENT-CLASS-333-70CR	c18 N72-17532	NASA-CASE-MFS-13532
	US-PATENT-3,609,567		US-PATENT-APPL-SN-720546
c10 N72-17172	NASA-CASE-ARC-10020		US-PATENT-CLASS-106-292
	US-PATENT-APPL-SN-31885		US-PATENT-CLASS-106-299
	US-PATENT-CLASS-330-26		US-PATENT-3,607,338
	US-PATENT-CLASS-330-31	c23 N72-17747	NASA-CASE-ERC-10089
	US-PATENT-CLASS-330-94		US-PATENT-APPL-SN-791267
	US-PATENT-CLASS-330-107		US-PATENT-CLASS-340-174AG
	US-PATENT-CLASS-330-109		US-PATENT-CLASS-340-174CT
	US-PATENT-3,605,032		US-PATENT-CLASS-340-174GA
c10 N72-17173	NASA-CASE-MFS-13130		US-PATENT-CLASS-340-174SC
	US-PATENT-APPL-SN-7868		US-PATENT-3,611,330
	US-PATENT-CLASS-250-83.3UV	c26 N72-17820	NASA-CASE-XER-08476-1
	US-PATENT-CLASS-250-209		US-PATENT-APPL-SN-672388
	US-PATENT-CLASS-340-228.2		US-PATENT-CLASS-29-578
	US-PATENT-3,609,364		US-PATENT-CLASS-29-589
c11 N72-17183	NASA-CASE-MFS-20509		US-PATENT-CLASS-148-187
	US-PATENT-APPL-SN-889557		US-PATENT-3,602,984
	US-PATENT-CLASS-73-147	c28 N72-17843	NASA-CASE-NPO-10046
	US-PATENT-3,602,920		US-PATENT-APPL-SN-860635
c14 N72-17323	NASA-CASE-ERC-10248		US-PATENT-CLASS-60-39.74
	US-PATENT-APPL-SN-868445		US-PATENT-CLASS-60-258
	US-PATENT-CLASS-350-162		US-PATENT-3,603,092
	US-PATENT-CLASS-356-113	c30 N72-17873	NASA-CASE-ARC-10134
	US-PATENT-CLASS-356-209		US-PATENT-APPL-SN-819898
	US-PATENT-CLASS-356-244		US-PATENT-CLASS-244-3.21
	US-PATENT-3,603,690		US-PATENT-3,603,532
c14 N72-17324	NASA-CASE-MFS-20596	c33 N72-17947	NASA-CASE-HSC-12143-1
	US-PATENT-APPL-SN-7867		US-PATENT-APPL-SN-791268
	US-PATENT-CLASS-350-3.5		US-PATENT-CLASS-102-105
	US-PATENT-3,605,519		US-PATENT-CLASS-161-67
c14 N72-17325	NASA-CASE-HSC-15158-1		US-PATENT-CLASS-244-117
	US-PATENT-APPL-SN-889479		US-PATENT-3,603,260
	US-PATENT-CLASS-324-52	c33 N72-17948	NASA-CASE-NPO-10828
	US-PATENT-3,609,535		US-PATENT-APPL-SN-873260
c14 N72-17326	NASA-CASE-XMS-01994-1		US-PATENT-CLASS-165-105
	US-PATENT-APPL-SN-814212		US-PATENT-3,603,382
	US-PATENT-CLASS-356-4	c08 N72-18184	NASA-CASE-NPO-10629
	US-PATENT-3,603,683		US-PATENT-APPL-SN-860751
c14 N72-17327	NASA-CASE-LEW-10281-1		US-PATENT-CLASS-178-50
	US-PATENT-APPL-SN-861649		US-PATENT-CLASS-178-66
	US-PATENT-CLASS-73-198		US-PATENT-CLASS-179-15
	US-PATENT-3,605,495		US-PATENT-CLASS-235-154
c14 N72-17328	NASA-CASE-XLA-07813		US-PATENT-CLASS-340-347DD
	US-PATENT-APPL-SN-791364		US-PATENT-3,603,976
	US-PATENT-CLASS-250-41.9	c14 N72-18411	NASA-CASE-KSC-10294
	US-PATENT-CLASS-250-49.5		US-PATENT-APPL-SN-889556
	US-PATENT-CLASS-250-71.5		US-PATENT-CLASS-95-1.1
	US-PATENT-CLASS-250-83.3		US-PATENT-CLASS-307-311
	US-PATENT-CLASS-250-207		US-PATENT-CLASS-346-23
	US-PATENT-3,609,353		US-PATENT-CLASS-346-107A
c14 N72-17329	NASA-CASE-FRC-10012		US-PATENT-CLASS-352-84
	US-PATENT-APPL-SN-771216		US-PATENT-3,603,974
	US-PATENT-CLASS-73-194A	c15 N72-18477	NASA-CASE-GSC-10566-1
	US-PATENT-3,611,801		US-PATENT-APPL-SN-889438
c15 N72-17450	NASA-CASE-HSC-12279		US-PATENT-CLASS-52-108
	US-PATENT-APPL-SN-24154		US-PATENT-CLASS-242-54
	US-PATENT-CLASS-188-1C		US-PATENT-3,608,844
	US-PATENT-CLASS-188-129	c28 N72-18766	NASA-CASE-GSC-10640-1
	US-PATENT-3,603,433		US-PATENT-APPL-SN-17101
c15 N72-17451	NASA-CASE-WLP-10002		US-PATENT-CLASS-23-281
	US-PATENT-APPL-SN-47062		US-PATENT-CLASS-23-288
	US-PATENT-CLASS-180-125		US-PATENT-CLASS-60-260
	US-PATENT-CLASS-180-127		US-PATENT-3,603,093
	US-PATENT-CLASS-308-DIG.1	c31 N72-18859	NASA-CASE-HSC-13281
	US-PATENT-CLASS-308-5		US-PATENT-APPL-SN-7669
	US-PATENT-CLASS-308-9		US-PATENT-CLASS-244-15.5
	US-PATENT-3,610,365		US-PATENT-3,606,212
c15 N72-17452	NASA-CASE-XLA-10322	c03 N72-20031	NASA-CASE-GSC-10669-1
	US-PATENT-APPL-SN-887699		US-PATENT-APPL-SN-90595
	US-PATENT-CLASS-73-88.5R		US-PATENT-CLASS-136-89
	US-PATENT-3,608,365		US-PATENT-CLASS-244-ISS
c15 N72-17453	NASA-CASE-NPO-11177		US-PATENT-CLASS-340-210
	US-PATENT-APPL-SN-20960		US-PATENT-3,636,539
	US-PATENT-CLASS-62-51	c03 N72-20032	NASA-CASE-NPO-11021
	US-PATENT-3,605,424		US-PATENT-APPL-SN-880250
c15 N72-17454	NASA-CASE-NPO-11059		US-PATENT-CLASS-136-79
	US-PATENT-APPL-SN-864020		US-PATENT-CLASS-136-81

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-136-166	c10 N72-20222	NASA-CASE-XLA-11189
	US-PATENT-3,625,766		US-PATENT-APPL-SN-889375
c03 N72-20033	NASA-CASE-NPO-10401		US-PATENT-CLASS-324-115
	US-PATENT-APPL-SN-15025		US-PATENT-CLASS-324-132
	US-PATENT-CLASS-210-212		US-PATENT-3,638,114
	US-PATENT-CLASS-356-222	c10 N72-20223	NASA-CASE-NPO-11133
	US-PATENT-3,630,627		US-PATENT-APPL-SN-887685
c03 N72-20034	NASA-CASE-LEW-11359-2		US-PATENT-CLASS-307-295
	US-PATENT-APPL-SN-57399		US-PATENT-CLASS-328-16
	US-PATENT-CLASS-136-838		US-PATENT-CLASS-328-20
	US-PATENT-CLASS-136-1008		US-PATENT-CLASS-328-38
	US-PATENT-CLASS-136-175		US-PATENT-CLASS-328-166
	US-PATENT-3,635,765		US-PATENT-3,626,308
c05 N72-20096	NASA-CASE-HSC-12411-1	c10 N72-20224	NASA-CASE-NPO-11203
	US-PATENT-APPL-SN-701244		US-PATENT-APPL-SN-3696
	US-PATENT-CLASS-2-2.1		US-PATENT-CLASS-324-83A
	US-PATENT-CLASS-128-142.5		US-PATENT-CLASS-324-85
	US-PATENT-CLASS-128-402		US-PATENT-CLASS-328-133
	US-PATENT-3,635,216		US-PATENT-CLASS-343-12
c05 N72-20097	NASA-CASE-HFS-20332		US-PATENT-3,631,351
	US-PATENT-APPL-SN-869260	c10 N72-20225	NASA-CASE-HSC-13407-1
	US-PATENT-CLASS-137-81		US-PATENT-APPL-SN-65840
	US-PATENT-CLASS-137-469		US-PATENT-CLASS-315-22
	US-PATENT-3,636,966		US-PATENT-CLASS-315-25
c05 N72-20098	NASA-CASE-HSC-12398		US-PATENT-3,638,066
	US-PATENT-APPL-SN-785615	c11 N72-20244	NASA-CASE-NPO-11210
	US-PATENT-CLASS-2-2.1		US-PATENT-APPL-SN-880831
	US-PATENT-3,624,839		US-PATENT-CLASS-123-102
c06 N72-20121	NASA-CASE-NPO-10765		US-PATENT-CLASS-180-105E
	US-PATENT-APPL-SN-770425		US-PATENT-CLASS-318-308
	US-PATENT-CLASS-260-544P		US-PATENT-CLASS-318-327
	US-PATENT-3,637,842		US-PATENT-CLASS-318-376
c07 N72-20140	NASA-CASE-NPO-10844		US-PATENT-3,630,304
	US-PATENT-APPL-SN-839934	c14 N72-20379	NASA-CASE-GSC-10514-1
	US-PATENT-CLASS-178-69.5R		US-PATENT-APPL-SN-873045
	US-PATENT-CLASS-179-158S		US-PATENT-CLASS-250-208
	US-PATENT-CLASS-325-4		US-PATENT-CLASS-356-138
	US-PATENT-CLASS-325-38		US-PATENT-CLASS-356-152
	US-PATENT-CLASS-325-58		US-PATENT-3,637,312
	US-PATENT-CLASS-325-321	c14 N72-20380	NASA-CASE-LAR-10176-1
	US-PATENT-3,626,298		US-PATENT-APPL-SN-811038
c07 N72-20141	NASA-CASE-ERC-10179		US-PATENT-CLASS-95-18
	US-PATENT-APPL-SN-50207		US-PATENT-3,626,828
	US-PATENT-CLASS-325-445	c14 N72-20381	NASA-CASE-GSC-10503-1
	US-PATENT-CLASS-329-161		US-PATENT-APPL-SN-789044
	US-PATENT-CLASS-329-162		US-PATENT-CLASS-250-83.6R
	US-PATENT-CLASS-332-51W		US-PATENT-3,626,189
	US-PATENT-CLASS-333-73W	c14 N72-20394	NASA-CASE-HSC-12448-1
	US-PATENT-CLASS-343-772		US-PATENT-APPL-SN-212010
	US-PATENT-CLASS-343-773	c15 N72-20442	NASA-CASE-GSC-10607-1
	US-PATENT-CLASS-343-786		US-PATENT-APPL-SN-27340
	US-PATENT-3,633,110		US-PATENT-CLASS-251-129
c07 N72-20154	NASA-CASE-NPO-11243		US-PATENT-CLASS-251-333
	US-PATENT-APPL-SN-177753		US-PATENT-3,632,081
c08 N72-20176	NASA-CASE-NPO-11130	c15 N72-20443	NASA-CASE-NPO-10671
	US-PATENT-APPL-SN-21508		US-PATENT-APPL-SN-857967
	US-PATENT-CLASS-235-92CC		US-PATENT-CLASS-188-1B
	US-PATENT-CLASS-235-92DE		US-PATENT-CLASS-188-1C
	US-PATENT-CLASS-235-92DM		US-PATENT-CLASS-188-268
	US-PATENT-CLASS-235-92LG		US-PATENT-3,637,051
	US-PATENT-CLASS-235-92R	c15 N72-20444	NASA-CASE-FRC-10038
	US-PATENT-CLASS-235-152		US-PATENT-APPL-SN-889554
	US-PATENT-CLASS-340-347DA		US-PATENT-CLASS-29-412
	US-PATENT-CLASS-340-347DD		US-PATENT-CLASS-29-426
	US-PATENT-3,632,996		US-PATENT-CLASS-29-527.2
c08 N72-20177	NASA-CASE-NPO-10748		US-PATENT-CLASS-29-624
	US-PATENT-APPL-SN-63383		US-PATENT-CLASS-51-216
	US-PATENT-CLASS-324-77G		US-PATENT-CLASS-51-320
	US-PATENT-3,631,339		US-PATENT-CLASS-51-323
c09 N72-20199	NASA-CASE-NPO-10722		US-PATENT-3,636,623
	US-PATENT-APPL-SN-860492	c15 N72-20445	NASA-CASE-NPO-10704
	US-PATENT-CLASS-200-81.9H		US-PATENT-APPL-SN-59895
	US-PATENT-CLASS-335-205		US-PATENT-CLASS-138-178
	US-PATENT-3,632,923		US-PATENT-CLASS-285-18
c09 N72-20200	NASA-CASE-NPO-10694		US-PATENT-CLASS-285-345
	US-PATENT-APPL-SN-24224		US-PATENT-3,632,140
	US-PATENT-CLASS-339-275T	c15 N72-20446	NASA-CASE-HFS-20698
	US-PATENT-CLASS-339-276T		US-PATENT-APPL-SN-3418
	US-PATENT-3,631,382		US-PATENT-CLASS-23-209.1
c09 N72-20206	NASA-CASE-ERC-10468		US-PATENT-CLASS-100-299
	US-PATENT-APPL-SN-144958		US-PATENT-CLASS-264-22
c10 N72-20221	NASA-CASE-GSC-10082-1		US-PATENT-CLASS-425-77
	US-PATENT-APPL-SN-41430		US-PATENT-3,632,242
	US-PATENT-CLASS-307-273	c22 N72-20597	NASA-CASE-XLE-04599
	US-PATENT-CLASS-307-288		US-PATENT-APPL-SN-751215
	US-PATENT-CLASS-307-313		US-PATENT-CLASS-176-86G
	US-PATENT-CLASS-328-207		US-PATENT-3,629,068
	US-PATENT-CLASS-330-30D	c28 N72-20758	NASA-CASE-KMP-03282
	US-PATENT-3,633,048		US-PATENT-APPL-SN-745337

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-60-254	c09 N72-21247	NASA-CASE-KSC-10393
	US-PATENT-3,636,711		US-PATENT-APPL-SN-71047
c28 N72-20767	NASA-CASE-ARC-10180-1		US-PATENT-CLASS-307-257
	US-PATENT-APPL-SN-136253		US-PATENT-CLASS-307-259
c31 N72-20840	NASA-CASE-MFS-20922		US-PATENT-CLASS-331-14
	US-PATENT-APPL-SN-220274		US-PATENT-CLASS-331-23
c33 N72-20915	NASA-CASE-NPO-10831		US-PATENT-CLASS-331-30
	US-PATENT-APPL-SN-10161		US-PATENT-CLASS-331-111
	US-PATENT-CLASS-122-32		US-PATENT-3,614,648
	US-PATENT-CLASS-165-133	c09 N72-21248	NASA-CASE-LAR-10503-1
	US-PATENT-CLASS-165-155		US-PATENT-APPL-SN-229143
	US-PATENT-CLASS-165-158	c12 N72-21310	NASA-CASE-MFS-20829
	US-PATENT-CLASS-165-161		US-PATENT-APPL-SN-61894
	US-PATENT-CLASS-165-174		US-PATENT-CLASS-169-28
	US-PATENT-3,630,276		US-PATENT-CLASS-169-36
c06 N72-21094	NASA-CASE-ERC-10108		US-PATENT-3,613,794
	US-PATENT-APPL-SN-833049	c14 N72-21405	NASA-CASE-NPO-10832
	US-PATENT-CLASS-96-36.2		US-PATENT-APPL-SN-22265
	US-PATENT-CLASS-156-3		US-PATENT-CLASS-73-141A
	US-PATENT-3,615,465		US-PATENT-3,623,360
c06 N72-21105	NASA-CASE-GSC-11304-1	c14 N72-21406	NASA-CASE-NPO-11103
	US-PATENT-APPL-SN-137912		US-PATENT-APPL-SN-3654
c07 N72-21117	NASA-CASE-XLA-11154		US-PATENT-CLASS-73-84
	US-PATENT-APPL-SN-23532		US-PATENT-3,623,359
	US-PATENT-CLASS-343-706	c14 N72-21407	NASA-CASE-MFS-20642
	US-PATENT-CLASS-343-912		US-PATENT-APPL-SN-873793
	US-PATENT-3,623,107		US-PATENT-CLASS-73-147
c07 N72-21118	NASA-CASE-NPO-11001		US-PATENT-3,623,361
	US-PATENT-APPL-SN-856279	c14 N72-21408	NASA-CASE-MSC-13332-1
	US-PATENT-CLASS-343-5CH		US-PATENT-APPL-SN-77169
	US-PATENT-CLASS-343-6.5R		US-PATENT-CLASS-250-43.5R
	US-PATENT-CLASS-343-100ST		US-PATENT-CLASS-250-83.3H
	US-PATENT-3,624,650		US-PATENT-3,614,431
c07 N72-21119	NASA-CASE-ERC-10112	c14 N72-21409	NASA-CASE-MSC-12105-1
	US-PATENT-APPL-SN-796690		US-PATENT-APPL-SN-763743
	US-PATENT-CLASS-179-100.2K		US-PATENT-CLASS-356-17
	US-PATENT-3,614,343		US-PATENT-CLASS-356-18
c08 N72-21197	NASA-CASE-KSC-10326	c14 N72-21431	US-PATENT-3,614,228
	US-PATENT-APPL-SN-25487		NASA-CASE-MFS-16609
	US-PATENT-CLASS-235-155		US-PATENT-APPL-SN-82279
	US-PATENT-CLASS-340-347DD	c14 N72-21432	NASA-CASE-LAR-10766-1
	US-PATENT-3,638,002		US-PATENT-APPL-SN-188836
c08 N72-21198	NASA-CASE-ERC-10307	c14 N72-21433	NASA-CASE-ARC-10344-1
	US-PATENT-APPL-SN-39755		US-PATENT-APPL-SN-180962
	US-PATENT-CLASS-307-299	c15 N72-21462	NASA-CASE-NPO-10679
	US-PATENT-CLASS-307-303		US-PATENT-APPL-SN-848282
	US-PATENT-CLASS-307-311		US-PATENT-CLASS-74-89.15
	US-PATENT-CLASS-340-173.2		US-PATENT-3,614,898
	US-PATENT-CLASS-340-173LS	c15 N72-21463	NASA-CASE-MFS-20413
	US-PATENT-3,623,030		US-PATENT-APPL-SN-69209
c08 N72-21199	NASA-CASE-NPO-10743		US-PATENT-CLASS-74-469
	US-PATENT-APPL-SN-850587		US-PATENT-3,620,095
	US-PATENT-CLASS-340-174CS	c15 N72-21464	NASA-CASE-ARC-10176-1
	US-PATENT-CLASS-340-174LC		US-PATENT-APPL-SN-889583
	US-PATENT-CLASS-340-174M		US-PATENT-CLASS-324-57R
	US-PATENT-CLASS-340-174SR		US-PATENT-CLASS-324-64
	US-PATENT-3,613,110		US-PATENT-CLASS-324-71R
c08 N72-21200	NASA-CASE-NPO-11018		US-PATENT-3,624,496
	US-PATENT-APPL-SN-873259	c15 N72-21465	NASA-CASE-GSC-10218-1
	US-PATENT-CLASS-340-347AD		US-PATENT-APPL-SN-15022
	US-PATENT-3,613,111		US-PATENT-CLASS-23-253R
c09 N72-21243	NASA-CASE-LEW-11005-1		US-PATENT-CLASS-23-259
	US-PATENT-APPL-SN-86548		US-PATENT-CLASS-73-425.6
	US-PATENT-CLASS-323-DIG.1		US-PATENT-CLASS-141-23
	US-PATENT-CLASS-323-22T		US-PATENT-CLASS-195-127
	US-PATENT-CLASS-323-38		US-PATENT-CLASS-222-71
	US-PATENT-3,638,103		US-PATENT-CLASS-222-135
c09 N72-21244	NASA-CASE-LAR-10545-1		US-PATENT-CLASS-222-309
	US-PATENT-APPL-SN-31703		US-PATENT-3,615,241
	US-PATENT-CLASS-343-771	c15 N72-21466	NASA-CASE-NPO-10440
	US-PATENT-CLASS-343-893		US-PATENT-APPL-SN-756834
	US-PATENT-3,638,224		US-PATENT-CLASS-204-59
c09 N72-21245	NASA-CASE-ARC-10192		US-PATENT-CLASS-204-130
	US-PATENT-APPL-SN-15024		US-PATENT-3,616,338
	US-PATENT-CLASS-307-230	c15 N72-21489	NASA-CASE-XLA-10470
	US-PATENT-CLASS-307-295		US-PATENT-APPL-SN-219436
	US-PATENT-CLASS-328-142	c21 N72-21624	NASA-CASE-HQN-10439
	US-PATENT-CLASS-328-167		US-PATENT-APPL-SN-889551
	US-PATENT-CLASS-330-70R		US-PATENT-CLASS-244-15A
	US-PATENT-CLASS-330-85		US-PATENT-3,637,170
	US-PATENT-CLASS-333-80	c21 N72-21631	NASA-CASE-ERC-10419
	US-PATENT-3,621,407		US-PATENT-APPL-SN-219722
c09 N72-21246	NASA-CASE-NPO-11134		NASA-CASE-ERC-10119
	US-PATENT-APPL-SN-883524	c26 N72-21701	US-PATENT-APPL-SN-825258
	US-PATENT-CLASS-318-576		US-PATENT-CLASS-307-299
	US-PATENT-CLASS-324-71R		US-PATENT-CLASS-317-234V
	US-PATENT-CLASS-346-1		US-PATENT-CLASS-317-235R
	US-PATENT-CLASS-346-29		US-PATENT-CLASS-331-107
	US-PATENT-3,624,659		US-PATENT-CLASS-332-31

ACCESSION NUMBER INDEX

c31 N72-21893 US-PATENT-3,614,557
 NASA-CASE-KSC-10622-1
 US-PATENT-APPL-SN-149983
 c03 N72-22041 NASA-CASE-NPO-10591
 US-PATENT-APPL-SN-776185
 US-PATENT-CLASS-29-572
 US-PATENT-3,616,528
 c03 N72-22042 NASA-CASE-NPO-10747
 US-PATENT-APPL-SN-6616
 US-PATENT-CLASS-136-89
 US-PATENT-3,615,853
 c05 N72-22092 NASA-CASE-ARC-10275-1
 US-PATENT-APPL-SN-21644
 US-PATENT-CLASS-2-2.1A
 US-PATENT-3,636,564
 c05 N72-22093 NASA-CASE-MSC-12324-1
 US-PATENT-APPL-SN-63384
 US-PATENT-CLASS-4-99
 US-PATENT-CLASS-128-295
 US-PATENT-3,602,923
 c06 N72-22107 NASA-CASE-NPO-10862
 US-PATENT-APPL-SN-810815
 US-PATENT-CLASS-260-877
 US-PATENT-3,639,510
 c07 N72-22127 NASA-CASE-NPO-10303
 US-PATENT-APPL-SN-848776
 US-PATENT-CLASS-343-771
 US-PATENT-CLASS-343-797
 US-PATENT-CLASS-343-853
 US-PATENT-CLASS-343-912
 US-PATENT-3,623,114
 c08 N72-22162 NASA-CASE-NPO-11333
 US-PATENT-APPL-SN-78065
 US-PATENT-CLASS-178-52
 US-PATENT-CLASS-179-15A
 US-PATENT-CLASS-179-15B1
 US-PATENT-CLASS-307-243
 US-PATENT-CLASS-307-251
 US-PATENT-CLASS-328-104
 US-PATENT-CLASS-328-154
 US-PATENT-3,614,327
 c08 N72-22163 NASA-CASE-MSC-13110-1
 US-PATENT-APPL-SN-23132
 US-PATENT-CLASS-340-347AD
 US-PATENT-3,614,772
 c08 N72-22164 NASA-CASE-NPO-10745
 US-PATENT-APPL-SN-878730
 US-PATENT-CLASS-178-DIG. 28
 US-PATENT-CLASS-178-DIG. 36
 US-PATENT-CLASS-178-6.8
 US-PATENT-CLASS-178-7. 2R
 US-PATENT-3,621,130
 c08 N72-22165 NASA-CASE-NPO-11104
 US-PATENT-APPL-SN-860750
 US-PATENT-CLASS-235-150.52
 US-PATENT-CLASS-235-150.53
 US-PATENT-CLASS-235-183
 US-PATENT-CLASS-235-194
 US-PATENT-CLASS-235-197
 US-PATENT-CLASS-340-347R
 US-PATENT-3,621,228
 c08 N72-22166 NASA-CASE-NPO-10560
 US-PATENT-APPL-SN-856282
 US-PATENT-CLASS-235-153
 US-PATENT-CLASS-324-73AT
 US-PATENT-CLASS-340-347AD
 US-PATENT-3,603,772
 c08 N72-22167 NASA-CASE-NPO-11082
 US-PATENT-APPL-SN-868529
 US-PATENT-CLASS-235-152
 US-PATENT-CLASS-340-146.1
 US-PATENT-CLASS-340-348
 US-PATENT-3,609,327
 c09 N72-22195 NASA-CASE-NFS-14710
 US-PATENT-APPL-SN-852843
 US-PATENT-CLASS-74-105
 US-PATENT-3,614,899
 c09 N72-22196 NASA-CASE-ERC-10075-2
 US-PATENT-APPL-SN-775870
 US-PATENT-CLASS-321-2
 US-PATENT-CLASS-321-14
 US-PATENT-CLASS-321-19
 US-PATENT-CLASS-321-25
 US-PATENT-CLASS-323-56
 US-PATENT-CLASS-323-89C
 US-PATENT-3,614,587
 c09 N72-22197 NASA-CASE-LEW-10433-1
 US-PATENT-APPL-SN-849106

US-PATENT-CLASS-307-88MP
 US-PATENT-CLASS-307-262
 US-PATENT-3,612,895
 c09 N72-22198 NASA-CASE-NFS-13687-2
 US-PATENT-APPL-SN-80369
 US-PATENT-CLASS-174-36
 US-PATENT-CLASS-174-106R
 US-PATENT-CLASS-174-117PF
 US-PATENT-3,612,743
 c09 N72-22199 NASA-CASE-ERC-10222
 US-PATENT-APPL-SN-832603
 US-PATENT-CLASS-29-590
 US-PATENT-3,621,565
 c09 N72-22200 NASA-CASE-FRC-10036
 US-PATENT-APPL-SN-872602
 US-PATENT-CLASS-73-88.5
 US-PATENT-CLASS-307-237
 US-PATENT-CLASS-307-254
 US-PATENT-CLASS-307-317
 US-PATENT-CLASS-328-1
 US-PATENT-CLASS-328-151
 US-PATENT-3,621,285
 c09 N72-22201 NASA-CASE-LEW-10387
 US-PATENT-APPL-SN-76899
 US-PATENT-CLASS-307-223B
 US-PATENT-CLASS-307-241
 US-PATENT-CLASS-307-252J
 US-PATENT-CLASS-307-252K
 US-PATENT-CLASS-307-284
 US-PATENT-CLASS-307-304
 US-PATENT-CLASS-307-317
 US-PATENT-CLASS-328-106
 US-PATENT-3,621,287
 c09 N72-22202 NASA-CASE-ARC-10136-1
 US-PATENT-APPL-SN-865106
 US-PATENT-CLASS-128-2.1A
 US-PATENT-CLASS-128-2R
 US-PATENT-CLASS-307-231
 US-PATENT-CLASS-307-247
 US-PATENT-CLASS-307-288
 US-PATENT-CLASS-325-29
 US-PATENT-CLASS-325-492
 US-PATENT-CLASS-340-171
 US-PATENT-CLASS-340-203
 US-PATENT-3,621,290
 c09 N72-22203 NASA-CASE-YER-11046
 US-PATENT-APPL-SF-810579
 US-PATENT-CLASS-321-2
 US-PATENT-CLASS-321-15
 US-PATENT-CLASS-321-18
 US-PATENT-CLASS-321-45
 US-PATENT-CLASS-331-117
 US-PATENT-3,621,362
 c09 N72-22204 NASA-CASE-LAR-10137-1
 US-PATENT-APPL-SN-881041
 US-PATENT-CLASS-200-81R
 US-PATENT-CLASS-200-82C
 US-PATENT-3,609,271
 c10 N72-22235 NASA-CASE-GSC-10064-1
 US-PATENT-APPL-SN-802812
 US-PATENT-CLASS-343-7.4
 US-PATENT-CLASS-343-16H
 US-PATENT-CLASS-343-779
 US-PATENT-CLASS-343-786
 US-PATENT-3,623,094
 c10 N72-22236 NASA-CASE-GSC-10878-1
 US-PATENT-APPL-SN-889423
 US-PATENT-CLASS-307-206
 US-PATENT-CLASS-307-215
 US-PATENT-CLASS-307-322
 US-PATENT-CLASS-307-323
 US-PATENT-3,621,277
 c11 N72-22245 NASA-CASE-NPO-12109
 US-PATENT-APPL-SN-690172
 US-PATENT-CLASS-230-54
 US-PATENT-CLASS-230-221
 US-PATENT-3,612,391
 c11 N72-22246 NASA-CASE-XLA-07430
 US-PATENT-APPL-SN-867841
 US-PATENT-CLASS-73-147
 US-PATENT-3,620,076
 c11 N72-22247 NASA-CASE-NPO-11013
 US-PATENT-APPL-SN-858695
 US-PATENT-CLASS-42-1F
 US-PATENT-3,619,924
 c14 N72-22437 NASA-CASE-LAR-10496-1
 US-PATENT-APPL-SN-12661
 US-PATENT-CLASS-73-141A
 US-PATENT-3,611,798

ACCESSION NUMBER INDEX

c14 N72-22438	NASA-CASE-ARC-10263-1 US-PATENT-APPL-SN-882122 US-PATENT-CLASS-73-398C US-PATENT-3,620,083	US-PATENT-APPL-SN-889558 US-PATENT-CLASS-29-628 US-PATENT-CLASS-219-85 US-PATENT-CLASS-219-158			
c14 N72-22439	NASA-CASE-MPS-20890 US-PATENT-APPL-SN-103229 US-PATENT-CLASS-29-421 US-PATENT-CLASS-264-22 US-PATENT-CLASS-310-11 US-PATENT-CLASS-310-42 US-PATENT-3,626,218	US-PATENT-CLASS-219-234 US-PATENT-CLASS-228-57 US-PATENT-3,621,194 NASA-CASE-MPS-20482 US-PATENT-APPL-SN-6610 US-PATENT-CLASS-29-472.9 US-PATENT-CLASS-29-473.1 US-PATENT-3,602,979			
c14 N72-22440	NASA-CASE-ARC-10154-1 US-PATENT-APPL-SN-793771 US-PATENT-CLASS-73-67.2 US-PATENT-3,620,069	c15 N72-22492	NASA-CASE-MPS-20482 US-PATENT-APPL-SN-6610 US-PATENT-CLASS-29-472.9 US-PATENT-CLASS-29-473.1 US-PATENT-3,602,979		
c14 N72-22441	NASA-CASE-NPO-11002 US-PATENT-APPL-SN-856328 US-PATENT-CLASS-350-19 US-PATENT-CLASS-350-23 US-PATENT-CLASS-350-26 US-PATENT-CLASS-350-35 US-PATENT-CLASS-350-36 US-PATENT-CLASS-350-49 US-PATENT-CLASS-350-52 US-PATENT-3,612,645	c16 N72-22520	NASA-CASE-LAR-10815-1 US-PATENT-APPL-SN-233587	c17 N72-22530	NASA-CASE-XLB-06461 US-PATENT-APPL-SN-853855 US-PATENT-CLASS-75-.5B US-PATENT-3,623,861
c14 N72-22442	NASA-CASE-MPS-21629 US-PATENT-APPL-SN-612265 US-PATENT-CLASS-73-304 US-PATENT-CLASS-324-61 US-PATENT-3,639,835	c17 N72-22535	NASA-CASE-LEW-10874-1 US-PATENT-APPL-SN-68024 US-PATENT-CLASS-75-170 US-PATENT-CLASS-148-32.5 US-PATENT-3,620,718	c18 N72-22566	NASA-CASE-MPS-20011 US-PATENT-APPL-SN-813338 US-PATENT-CLASS-106-84 US-PATENT-CLASS-106-286 US-PATENT-CLASS-106-288B US-PATENT-3,620,791
c14 N72-22443	NASA-CASE-XGS-03736 US-PATENT-APPL-SN-749320 US-PATENT-CLASS-96-90PC US-PATENT-CLASS-252-300 US-PATENT-3,639,250	c18 N72-22567	NASA-CASE-NPO-11091 US-PATENT-APPL-SN-860781 US-PATENT-CLASS-260-2.1E US-PATENT-3,629,161	c21 N72-22619	NASA-CASE-ARC-10179-1 US-PATENT-APPL-SN-835058 US-PATENT-CLASS-244-114 US-PATENT-CLASS-340-26 US-PATENT-3,624,598
c14 N72-22444	NASA-CASE-LAR-10523-1 US-PATENT-APPL-SN-32665 US-PATENT-CLASS-250-203 US-PATENT-CLASS-350-16 US-PATENT-CLASS-350-52 US-PATENT-CLASS-356-248 US-PATENT-3,647,276	c23 N72-22673	NASA-CASE-XER-07896-2 US-PATENT-APPL-SN-36819 US-PATENT-CLASS-350-310 US-PATENT-3,620,606	c28 N72-22769	NASA-CASE-ARC-10106-1 US-PATENT-APPL-SN-812998 US-PATENT-CLASS-244-3.22 US-PATENT-3,612,442
c14 N72-22445	NASA-CASE-LAR-10184 US-PATENT-APPL-SN-16808 US-PATENT-CLASS-33-174S US-PATENT-CLASS-350-86 US-PATENT-3,620,595	c28 N72-22770	NASA-CASE-LEW-10770-1 US-PATENT-APPL-SN-880246 US-PATENT-CLASS-60-202 US-PATENT-3,613,370	c28 N72-22771	NASA-CASE-LEW-10835-1 US-PATENT-APPL-SN-67815 US-PATENT-CLASS-60-202 US-PATENT-3,620,018
c15 N72-22482	NASA-CASE-XLA-04897 US-PATENT-APPL-SN-880249 US-PATENT-CLASS-73-133 US-PATENT-3,613,457	c28 N72-22772	NASA-CASE-NPO-12072 US-PATENT-APPL-SN-82647 US-PATENT-CLASS-123-122AB US-PATENT-CLASS-137-81.5 US-PATENT-CLASS-261-145 US-PATENT-3,640,256	c31 N72-22874	NASA-CASE-NPO-10883 US-PATENT-APPL-SN-26573 US-PATENT-CLASS-136-89 US-PATENT-CLASS-312-257 US-PATENT-3,620,846
c15 N72-22483	NASA-CASE-XNP-09770-2 US-PATENT-APPL-SN-864039 US-PATENT-CLASS-209-349 US-PATENT-3,615,021	c03 N72-23048	NASA-CASE-NPO-11388 US-PATENT-APPL-SN-119282 US-PATENT-CLASS-310-2 US-PATENT-CLASS-321-2 US-PATENT-CLASS-322-2 US-PATENT-3,648,152	c05 N72-23085	NASA-CASE-LAR-10102-1 US-PATENT-APPL-SN-13266 US-PATENT-CLASS-224-25A US-PATENT-3,649,921
c15 N72-22484	NASA-CASE-LAR-10031 US-PATENT-APPL-SN-867851 US-PATENT-CLASS-62-55.5 US-PATENT-3,625,018	c09 N72-23171	NASA-CASE-GSC-10221-1 US-PATENT-APPL-SN-779025 US-PATENT-CLASS-307-252N US-PATENT-CLASS-307-252R US-PATENT-CLASS-307-259 US-PATENT-CLASS-307-305 US-PATENT-3,621,294	c09 N72-23172	NASA-CASE-LAR-10320-1 US-PATENT-APPL-SN-18427 US-PATENT-CLASS-324-20R US-PATENT-3,649,907
c15 N72-22485	NASA-CASE-HSC-13512-1 US-PATENT-APPL-SN-73932 US-PATENT-CLASS-74-501R US-PATENT-3,625,084	c09 N72-23173	NASA-CASE-ERC-10267 US-PATENT-APPL-SN-41348 US-PATENT-CLASS-235-197		
c15 N72-22486	NASA-CASE-KSC-10031 US-PATENT-APPL-SN-98773 US-PATENT-CLASS-220-5R US-PATENT-CLASS-317-101DH US-PATENT-CLASS-317-117 US-PATENT-CLASS-317-120 US-PATENT-3,639,809				
c15 N72-22487	NASA-CASE-GSC-10303 US-PATENT-APPL-SN-802813 US-PATENT-CLASS-29-473.1 US-PATENT-3,619,896				
c15 N72-22488	NASA-CASE-HSC-11849-1 US-PATENT-APPL-SN-6617 US-PATENT-CLASS-85-1 US-PATENT-3,623,394				
c15 N72-22489	NASA-CASE-GSC-10518-1 US-PATENT-APPL-SN-789045 US-PATENT-CLASS-55-446 US-PATENT-CLASS-55-464 US-PATENT-CLASS-417-152 US-PATENT-3,623,828				
c15 N72-22490	NASA-CASE-LEW-10856-1 US-PATENT-APPL-SN-3417 US-PATENT-CLASS-308-195 US-PATENT-3,620,585				
c15 N72-22491	NASA-CASE-GSC-10913				

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-307-229	c05 N72-25120	NASA-CASE-NSC-90153-2
	US-PATENT-CLASS-328-145		US-PATENT-APPL-SN-844225
	US-PATENT-3,648,043		US-PATENT-CLASS-106-209
c11 N72-23215	NASA-CASE-HFS-20710		US-PATENT-CLASS-128-2.1
	US-PATENT-APPL-SN-114848		US-PATENT-CLASS-128-417
	US-PATENT-CLASS-13-20		US-PATENT-CLASS-252-514
	US-PATENT-CLASS-13-31		US-PATENT-CLASS-264-104
	US-PATENT-3,647,924		US-PATENT-3,665,064
c14 N72-23457	NASA-CASE-NSC-12297	c05 N72-25121	NASA-CASE-FRC-10029-2
	US-PATENT-APPL-SN-792623		US-PATENT-APPL-SN-78704
	US-PATENT-CLASS-55-493		US-PATENT-CLASS-29-25.14
	US-PATENT-CLASS-55-498		US-PATENT-CLASS-29-25.18
	US-PATENT-CLASS-55-502		US-PATENT-CLASS-29-482
	US-PATENT-CLASS-55-521		US-PATENT-CLASS-29-630A
	US-PATENT-3,650,095		US-PATENT-CLASS-156-264
c15 N72-23497	NASA-CASE-KSC-10242		US-PATENT-CLASS-156-308
	US-PATENT-APPL-SN-73834		US-PATENT-3,662,441
	US-PATENT-CLASS-219-85	c05 N72-25122	NASA-CASE-NSC-13609-1
	US-PATENT-CLASS-219-109		US-PATENT-APPL-SN-94347
	US-PATENT-CLASS-219-234		US-PATENT-CLASS-128-2W
	US-PATENT-CLASS-324-65R		US-PATENT-3,662,744
	US-PATENT-3,621,193	c06 N72-25146	NASA-CASE-NPO-11322
c18 N72-23581	NASA-CASE-GSC-10361-1		US-PATENT-APPL-SN-87550
	US-PATENT-APPL-SN-700040		US-PATENT-CLASS-73-23.1
	US-PATENT-CLASS-106-84		US-PATENT-CLASS-250-43.5R
	US-PATENT-3,620,784		US-PATENT-3,666,942
c23 N72-23695	NASA-CASE-HQW-10541-3	c06 N72-25147	NASA-CASE-ARC-10325
	US-PATENT-APPL-SN-822089		US-PATENT-APPL-SN-63610
	US-PATENT-CLASS-350-171		US-PATENT-CLASS-260-2.5PP
	US-PATENT-3,606,522		US-PATENT-3,663,464
c28 N72-23809	NASA-CASE-KWP-09461	c06 N72-25148	NASA-CASE-HFS-13994-2
	US-PATENT-APPL-SN-670829		US-PATENT-APPL-SN-870689
	US-PATENT-CLASS-239-418		US-PATENT-CLASS-260-348SC
	US-PATENT-CLASS-239-433		US-PATENT-3,660,434
	US-PATENT-CLASS-239-543	c06 N72-25149	NASA-CASE-GSC-10565-1
	US-PATENT-3,650,474		US-PATENT-APPL-SN-822039
c28 N72-23810	NASA-CASE-NPO-11458		US-PATENT-CLASS-195-28W
	US-PATENT-APPL-SN-36926		US-PATENT-CLASS-195-103.5R
	US-PATENT-CLASS-60-266		US-PATENT-CLASS-260-211.5
	US-PATENT-CLASS-60-271		US-PATENT-3,660,240
	US-PATENT-3,648,461	c06 N72-25150	NASA-CASE-XLE-06774-2
c03 N72-24037	NASA-CASE-GSC-11514-1		US-PATENT-APPL-SN-5114
	US-PATENT-APPL-SN-820453		US-PATENT-CLASS-117-132
	US-PATENT-CLASS-117-201		US-PATENT-CLASS-117-161
	US-PATENT-CLASS-136-89		US-PATENT-CLASS-260-2.5
	US-PATENT-3,653,970		US-PATENT-CLASS-260-92.1
c14 N72-24477	NASA-CASE-ARC-10138-1	c06 N72-25151	US-PATENT-3,666,741
	US-PATENT-APPL-SN-774733		NASA-CASE-HFS-20979
	US-PATENT-CLASS-73-355R		US-PATENT-APPL-SN-100774
	US-PATENT-CLASS-250-83.3H		US-PATENT-CLASS-260-18S
	US-PATENT-CLASS-317-247		US-PATENT-CLASS-260-46.5R
	US-PATENT-CLASS-324-61R		US-PATENT-CLASS-260-46.5G
	US-PATENT-3,657,644		US-PATENT-CLASS-260-46.5P
c15 N72-24522	NASA-CASE-NPO-11036		US-PATENT-CLASS-260-448.2D
	US-PATENT-APPL-SN-41346		US-PATENT-3,666,718
	US-PATENT-CLASS-264-92	c06 N72-25152	NASA-CASE-NPO-10863-2
	US-PATENT-3,658,974		US-PATENT-APPL-SN-145026
c25 N72-24753	NASA-CASE-KWP-04167-2		US-PATENT-CLASS-260-92.1
	US-PATENT-APPL-SN-866442		US-PATENT-3,663,521
	US-PATENT-CLASS-313-186	c07 N72-25170	NASA-CASE-LAR-10513-1
	US-PATENT-CLASS-313-212		US-PATENT-APPL-SN-64723
	US-PATENT-CLASS-313-224		US-PATENT-CLASS-333-7
	US-PATENT-CLASS-313-231		US-PATENT-CLASS-333-81R
	US-PATENT-CLASS-315-111		US-PATENT-CLASS-333-98P
	US-PATENT-CLASS-315-326		US-PATENT-CLASS-333-98R
	US-PATENT-CLASS-315-358		US-PATENT-CLASS-333-98S
	US-PATENT-CLASS-331-94.5		US-PATENT-3,649,935
	US-PATENT-3,617,804	c07 N72-25171	NASA-CASE-HFS-21042
c03 N72-25019	NASA-CASE-NPO-10575		US-PATENT-APPL-SN-86417
	US-PATENT-APPL-SN-6615		US-PATENT-CLASS-102-34.4
	US-PATENT-CLASS-156-250		US-PATENT-CLASS-325-4
	US-PATENT-CLASS-156-510		US-PATENT-CLASS-325-114
	US-PATENT-3,654,036		US-PATENT-CLASS-343-6.5R
c03 N72-25020	NASA-CASE-GSC-11211-1		US-PATENT-3,667,044
	US-PATENT-APPL-SN-139528	c07 N72-25172	NASA-CASE-NPO-11358
	US-PATENT-CLASS-235-92T		US-PATENT-APPL-SN-116786
	US-PATENT-CLASS-307-141.8		US-PATENT-CLASS-179-158V
	US-PATENT-CLASS-320-48		US-PATENT-CLASS-340-172.5
	US-PATENT-CLASS-324-29.5		US-PATENT-3,665,417
	US-PATENT-3,663,938	c07 N72-25173	NASA-CASE-ERC-10324
c03 N72-25021	NASA-CASE-NPO-11118		US-PATENT-APPL-SN-54270
	US-PATENT-APPL-SN-8650		US-PATENT-CLASS-178-69.5
	US-PATENT-CLASS-214-90R		US-PATENT-CLASS-325-38
	US-PATENT-3,666,120		US-PATENT-CLASS-325-51
c05 N72-25119	NASA-CASE-NSC-12397-1		US-PATENT-CLASS-325-55
	US-PATENT-APPL-SN-785613		US-PATENT-CLASS-325-58
	US-PATENT-CLASS-2-2.1		US-PATENT-CLASS-325-64
	US-PATENT-CLASS-2-115		US-PATENT-CLASS-325-141
	US-PATENT-3,660,851		US-PATENT-CLASS-325-302

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-325-325		US-PATENT-CLASS-321-2
	US-PATENT-CLASS-340-167		US-PATENT-CLASS-321-45B
	US-PATENT-3,665,313		US-PATENT-CLASS-331-113A
c07 N72-25174	NASA-CASE-NPO-11264	c09 N72-25255	US-PATENT-3,663,944
	US-PATENT-APPL-SN-36531		NASA-CASE-LAR-10620-1
	US-PATENT-CLASS-343-762		US-PATENT-APPL-SN-125979
	US-PATENT-CLASS-343-777		US-PATENT-CLASS-310-10
	US-PATENT-CLASS-343-779		US-PATENT-CLASS-310-15
	US-PATENT-CLASS-343-786		US-PATENT-3,663,843
	US-PATENT-CLASS-343-853	c09 N72-25256	NASA-CASE-XLA-02609
	US-PATENT-3,665,481		US-PATENT-APPL-SN-41347
c08 N72-25206	NASA-CASE-KSC-10397		US-PATENT-CLASS-333-79
	US-PATENT-APPL-SN-25488		US-PATENT-CLASS-339-143R
	US-PATENT-CLASS-235-154		US-PATENT-CLASS-339-147R
	US-PATENT-CLASS-340-347DA		US-PATENT-3,663,929
	US-PATENT-3,648,275	c09 N72-25257	NASA-CASE-HSC-12395
c08 N72-25207	NASA-CASE-NPO-11161		US-PATENT-APPL-SN-134573
	US-PATENT-APPL-SN-889374		US-PATENT-CLASS-307-233
	US-PATENT-CLASS-340-146.1		US-PATENT-CLASS-324-78D
	US-PATENT-CLASS-340-172.5		US-PATENT-CLASS-324-186
	US-PATENT-3,648,256		US-PATENT-CLASS-328-136
c08 N72-25208	NASA-CASE-NPO-11338		US-PATENT-CLASS-328-140
	US-PATENT-APPL-SN-89212		US-PATENT-3,663,885
	US-PATENT-CLASS-178-50	c09 N72-25258	NASA-CASE-LAR-10253-1
	US-PATENT-CLASS-179-15BC		US-PATENT-APPL-SN-99175
	US-PATENT-CLASS-179-15PD		US-PATENT-CLASS-307-88.3
	US-PATENT-CLASS-325-62		US-PATENT-CLASS-330-4.5
	US-PATENT-CLASS-332-21		US-PATENT-3,663,886
	US-PATENT-3,659,053	c09 N72-25259	NASA-CASE-GSC-10695-1
c08 N72-25209	NASA-CASE-NPO-11194		US-PATENT-APPL-SN-889422
	US-PATENT-APPL-SN-63532		US-PATENT-CLASS-29-198
	US-PATENT-CLASS-343-6.5R		US-PATENT-CLASS-117-200
	US-PATENT-CLASS-343-12R		US-PATENT-CLASS-136-89
	US-PATENT-CLASS-343-14		US-PATENT-3,664,874
	US-PATENT-3,659,292	c09 N72-25260	NASA-CASE-NPO-11283
c08 N72-25210	NASA-CASE-NPO-10636		US-PATENT-APPL-SN-118270
	US-PATENT-APPL-SN-77221		US-PATENT-CLASS-310-4
	US-PATENT-CLASS-235-152		US-PATENT-3,663,839
	US-PATENT-CLASS-340-146.1AL	c09 N72-25261	NASA-CASE-ERC-10224
	US-PATENT-3,662,337		US-PATENT-APPL-SN-868775
c09 N72-25247	NASA-CASE-LAR-10163-1		US-PATENT-CLASS-29-492
	US-PATENT-APPL-SN-73310		US-PATENT-CLASS-29-497
	US-PATENT-CLASS-343-708		US-PATENT-CLASS-29-498
	US-PATENT-CLASS-343-771		US-PATENT-CLASS-29-502
	US-PATENT-CLASS-343-873		US-PATENT-CLASS-29-589
	US-PATENT-3,653,052		US-PATENT-CLASS-29-628
c09 N72-25248	NASA-CASE-NPO-11342		US-PATENT-3,665,589
	US-PATENT-APPL-SN-89209	c09 N72-25262	NASA-CASE-NPO-11078
	US-PATENT-CLASS-340-172.5		US-PATENT-APPL-SN-82280
	US-PATENT-CLASS-340-324A		US-PATENT-CLASS-307-83
	US-PATENT-3,648,250		US-PATENT-CLASS-307-103
c09 N72-25249	NASA-CASE-GSC-10656-1		US-PATENT-CLASS-323-48
	US-PATENT-APPL-SN-59969		US-PATENT-CLASS-323-82
	US-PATENT-CLASS-321-2		US-PATENT-3,663,828
	US-PATENT-CLASS-323-DIG.1	c11 N72-25284	NASA-CASE-LAR-10507-1
	US-PATENT-CLASS-323-17		US-PATENT-APPL-SN-874177
	US-PATENT-CLASS-323-22T		US-PATENT-CLASS-195-127
	US-PATENT-3,621,372		US-PATENT-3,649,462
c09 N72-25250	NASA-CASE-KSC-10565	c11 N72-25287	NASA-CASE-LAR-10546-1
	US-PATENT-APPL-SN-98517		US-PATENT-APPL-SN-32664
	US-PATENT-CLASS-315-135		US-PATENT-CLASS-52-648
	US-PATENT-CLASS-315-349		US-PATENT-CLASS-52-655
	US-PATENT-CLASS-330-2		US-PATENT-CLASS-287-54A
	US-PATENT-CLASS-330-59		US-PATENT-3,665,670
	US-PATENT-CLASS-340-332	c11 N72-25288	NASA-CASE-WFS-20434
	US-PATENT-3,659,148		US-PATENT-APPL-SN-55534
c09 N72-25251	NASA-CASE-ERC-10048		US-PATENT-CLASS-73-140
	US-PATENT-APPL-SN-10329		US-PATENT-CLASS-73-161
	US-PATENT-CLASS-307-261		US-PATENT-3,665,758
	US-PATENT-CLASS-321-2	c12 N72-25292	NASA-CASE-NPO-11556
	US-PATENT-CLASS-321-18		US-PATENT-APPL-SN-82648
	US-PATENT-3,659,184		US-PATENT-CLASS-210-188
c09 N72-25252	NASA-CASE-ERC-10268		US-PATENT-CLASS-310-11
	US-PATENT-APPL-SN-39342		US-PATENT-3,648,083
	US-PATENT-CLASS-321-2	c13 N72-25323	NASA-CASE-NPO-11373
	US-PATENT-CLASS-321-11		US-PATENT-APPL-SN-81095
	US-PATENT-CLASS-321-18		US-PATENT-CLASS-73-421.5R
	US-PATENT-CLASS-321-19		US-PATENT-CLASS-73-4226C
	US-PATENT-CLASS-321-45ER		US-PATENT-CLASS-73-422TC
	US-PATENT-CLASS-321-45R		US-PATENT-3,662,604
	US-PATENT-3,663,940	c14 N72-25409	NASA-CASE-ERC-10174
c09 N72-25253	NASA-CASE-GSC-11126-1		US-PATENT-APPL-SN-39344
	US-PATENT-APPL-SN-98640		US-PATENT-CLASS-250-83.30V
	US-PATENT-CLASS-321-2		US-PATENT-CLASS-250-209
	US-PATENT-CLASS-321-47		US-PATENT-CLASS-250-226
	US-PATENT-CLASS-331-113A		US-PATENT-CLASS-350-203
	US-PATENT-3,663,941		US-PATENT-3,657,549
c09 N72-25254	NASA-CASE-NPO-10760	c14 N72-25410	NASA-CASE-ERC-10292
	US-PATENT-APPL-SN-129071		US-PATENT-APPL-SN-45519

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-73-515		US-PATENT-APPL-SN-59893
	US-PATENT-CLASS-73-521		US-PATENT-CLASS-310-68
	US-PATENT-CLASS-350-160R		US-PATENT-CLASS-310-80
	US-PATENT-3,657,928		US-PATENT-CLASS-310-83
c14 N72-25411	NASA-CASE-MSC-15626-1	c15 N72-25457	US-PATENT-3,660,704
	US-PATENT-APPL-SN-94374		NASA-CASE-ERC-10325
	US-PATENT-CLASS-73-12		US-PATENT-APPL-SN-43884
	US-PATENT-CLASS-73-492		US-PATENT-CLASS-324-158D
	US-PATENT-CLASS-116-114AH		US-PATENT-CLASS-324-158T
	US-PATENT-3,656,352		US-PATENT-3,665,307
c14 N72-25412	NASA-CASE-MPS-15063	c16 N72-25485	NASA-CASE-ERC-10283
	US-PATENT-APPL-SN-51477		US-PATENT-APPL-SN-39185
	US-PATENT-CLASS-178-DIG.8		US-PATENT-CLASS-331-94.5
	US-PATENT-CLASS-178-6.8		US-PATENT-CLASS-332-7.51
	US-PATENT-CLASS-340-227R		US-PATENT-3,659,225
	US-PATENT-3,659,043	c18 N72-25539	NASA-CASE-LEW-10424-2-2
c14 N72-25413	NASA-CASE-GSC-10879-1		US-PATENT-APPL-SN-15222
	US-PATENT-APPL-SN-889420		US-PATENT-CLASS-75-DIG.1
	US-PATENT-CLASS-195-127		US-PATENT-CLASS-75-208
	US-PATENT-3,666,631		US-PATENT-CLASS-75-211
c14 N72-25414	NASA-CASE-NPO-11311		US-PATENT-CLASS-75-226
	US-PATENT-APPL-SN-57252		US-PATENT-3,653,882
	US-PATENT-CLASS-178-7.92	c18 N72-25540	NASA-CASE-ERC-10364
	US-PATENT-CLASS-350-175PS		US-PATENT-APPL-SN-55537
	US-PATENT-3,663,753		US-PATENT-CLASS-52-DIG.10
c14 N72-25428	NASA-CASE-HQN-10756-1		US-PATENT-CLASS-52-80
	US-PATENT-APPL-SN-236052		US-PATENT-CLASS-161-7
c15 N72-25447	NASA-CASE-LEW-10489-1		US-PATENT-CLASS-161-68
	US-PATENT-APPL-SN-889682		US-PATENT-CLASS-161-127
	US-PATENT-CLASS-29-599		US-PATENT-3,663,347
	US-PATENT-CLASS-117-62	c18 N72-25541	NASA-CASE-ERC-10363
	US-PATENT-CLASS-117-93.16D		US-PATENT-APPL-SN-57253
	US-PATENT-CLASS-117-107		US-PATENT-CLASS-52-DIG.10
	US-PATENT-CLASS-117-211		US-PATENT-CLASS-52-80
	US-PATENT-CLASS-117-217		US-PATENT-CLASS-161-7
	US-PATENT-3,649,356		US-PATENT-CLASS-161-68
c15 N72-25448	NASA-CASE-LEW-10450-1		US-PATENT-CLASS-161-127
	US-PATENT-APPL-SN-880271		US-PATENT-3,663,346
	US-PATENT-CLASS-75-0.5BB	c21 N72-25595	NASA-CASE-MSC-13397-1
	US-PATENT-CLASS-75-206		US-PATENT-APPL-SN-59966
	US-PATENT-CLASS-75-213		US-PATENT-CLASS-244-15A
	US-PATENT-3,649,242		US-PATENT-CLASS-244-23A
c15 N72-25450	NASA-CASE-NPO-11202		US-PATENT-3,662,973
	US-PATENT-APPL-SN-66004	c23 N72-25619	NASA-CASE-NPO-10634
	US-PATENT-CLASS-285-DIG.21		US-PATENT-APPL-SN-112999
	US-PATENT-CLASS-285-3		US-PATENT-CLASS-62-6
	US-PATENT-CLASS-285-33		US-PATENT-CLASS-62-80
	US-PATENT-CLASS-285-316		US-PATENT-CLASS-62-85
	US-PATENT-CLASS-339-45H		US-PATENT-CLASS-62-475
	US-PATENT-CLASS-339-91B		US-PATENT-3,656,313
	US-PATENT-3,656,781	c26 N72-25679	NASA-CASE-XER-07895
c15 N72-25451	NASA-CASE-NPO-10606		US-PATENT-APPL-SN-651627
	US-PATENT-APPL-SN-8636		US-PATENT-CLASS-317-234J
	US-PATENT-CLASS-251-360		US-PATENT-CLASS-317-235A
	US-PATENT-3,658,295		US-PATENT-CLASS-317-235AJ
c15 N72-25452	NASA-CASE-LEW-10965-1		US-PATENT-CLASS-331-107G
	US-PATENT-APPL-SN-876588		US-PATENT-3,667,010
	US-PATENT-CLASS-96-36.2	c26 N72-25680	NASA-CASE-ERC-10275
	US-PATENT-CLASS-117-16R		US-PATENT-APPL-SN-47061
	US-PATENT-CLASS-117-37		US-PATENT-CLASS-324-92
	US-PATENT-CLASS-117-47R		US-PATENT-CLASS-324-96
	US-PATENT-CLASS-117-62		US-PATENT-CLASS-340-324R
	US-PATENT-CLASS-117-93.3		US-PATENT-CLASS-350-150
	US-PATENT-CLASS-117-124C		US-PATENT-CLASS-350-160R
	US-PATENT-CLASS-117-152		US-PATENT-3,667,039
	US-PATENT-CLASS-204-49	c27 N72-25699	NASA-CASE-NPO-12000
	US-PATENT-CLASS-204-157.18AG		US-PATENT-APPL-SN-74861
	US-PATENT-CLASS-250-65P		US-PATENT-CLASS-149-19
	US-PATENT-3,658,569		US-PATENT-CLASS-149-20
c15 N72-25453	NASA-CASE-KSC-10513		US-PATENT-CLASS-149-36
	US-PATENT-APPL-SN-61535		US-PATENT-CLASS-149-92
	US-PATENT-CLASS-187-1		US-PATENT-3,658,608
	US-PATENT-CLASS-187-20	c31 N72-25842	NASA-CASE-MSC-12372-1
	US-PATENT-CLASS-187-95		US-PATENT-APPL-SN-64391
	US-PATENT-CLASS-254-190		US-PATENT-CLASS-95-12.5
	US-PATENT-3,666,051		US-PATENT-3,662,661
c15 N72-25454	NASA-CASE-MSC-12233-1	c32 N72-25877	NASA-CASE-LAR-10270-1
	US-PATENT-APPL-SN-73422		US-PATENT-APPL-SN-60881
	US-PATENT-CLASS-52-169		US-PATENT-CLASS-73-15.6
	US-PATENT-CLASS-52-173		US-PATENT-CLASS-73-100
	US-PATENT-CLASS-52-594		US-PATENT-3,665,751
	US-PATENT-3,665,669	c33 N72-25911	NASA-CASE-LEW-10359
c15 N72-25455	NASA-CASE-NPO-11095		US-PATENT-APPL-SN-47063
	US-PATENT-APPL-SN-19585		US-PATENT-CLASS-60-200A
	US-PATENT-CLASS-60-39.74A		US-PATENT-CLASS-60-265
	US-PATENT-CLASS-60-258		US-PATENT-CLASS-60-267
	US-PATENT-CLASS-239-424		US-PATENT-CLASS-62-467
	US-PATENT-3,662,547		US-PATENT-CLASS-102-105
c15 N72-25456	NASA-CASE-NPO-11222		

ACCESSION NUMBER INDEX

c33 N72-25913	US-PATENT-3,656,317 NASA-CASE-XMS-09690 US-PATENT-APPL-SN-853641 US-PATENT-CLASS-73-15R US-PATENT-3,665,750	US-PATENT-CLASS-315-151 US-PATENT-CLASS-315-156 US-PATENT-CLASS-315-158 US-PATENT-CLASS-315-297 US-PATENT-CLASS-315-307 US-PATENT-CLASS-315-310 US-PATENT-CLASS-315-311 US-PATENT-3,670,202	
c03 N72-26031	NASA-CASE-NPO-10753 US-PATENT-APPL-SN-844355 US-PATENT-CLASS-136-202 US-PATENT-3,666,566	NASA-CASE-HFS-20523 US-PATENT-APPL-SN-77786 US-PATENT-CLASS-73-71.6 US-PATENT-CLASS-73-103 US-PATENT-3,670,563	
c15 N72-26371	NASA-CASE-NPO-10244 US-PATENT-APPL-SN-43327 US-PATENT-CLASS-73-136R US-PATENT-CLASS-308-2A US-PATENT-3,664,185	NASA-CASE-NPO-10721 US-PATENT-APPL-SN-59968 US-PATENT-CLASS-248-188.4 US-PATENT-3,669,393	
c03 N72-27053	NASA-CASE-GSC-10344-1 US-PATENT-APPL-SN-785078 US-PATENT-CLASS-136-89 US-PATENT-3,672,999	NASA-CASE-KLA-09843 US-PATENT-APPL-SN-60876 US-PATENT-CLASS-83-8 US-PATENT-CLASS-83-522 US-PATENT-CLASS-83-562 US-PATENT-CLASS-83-563 US-PATENT-CLASS-83-588 US-PATENT-3,668,956	
c05 N72-27102	NASA-CASE-LAR-10365-1 US-PATENT-APPL-SN-3151 US-PATENT-CLASS-210-103 US-PATENT-CLASS-210-104 US-PATENT-CLASS-210-110 US-PATENT-CLASS-210-137 US-PATENT-3,670,890	c23 N72-27728	NASA-CASE-ARC-10160-1 US-PATENT-APPL-SN-867842 US-PATENT-CLASS-178-DIG. 20 US-PATENT-CLASS-178-6.5 US-PATENT-CLASS-350-138 US-PATENT-3,670,097
c05 N72-27103	NASA-CASE-HSC-13648 US-PATENT-APPL-SN-87222 US-PATENT-CLASS-128-DIG. 4 US-PATENT-CLASS-128-2.1E US-PATENT-CLASS-128-417 US-PATENT-3,669,110	c26 N72-27784	NASA-CASE-LAR-10836-1 US-PATENT-APPL-SN-138227 US-PATENT-CLASS-350-161 US-PATENT-3,671,105
c06 N72-27144	NASA-CASE-NPO-10768-2 US-PATENT-APPL-SN-99524 US-PATENT-APPL-SN-770398 US-PATENT-CLASS-260-77.5AP US-PATENT-CLASS-260-535H US-PATENT-3,671,497	c33 N72-27959	NASA-CASE-LAR-10800-1 US-PATENT-APPL-SN-154094 US-PATENT-CLASS-73-35 US-PATENT-3,670,559
c06 N72-27151	NASA-CASE-NPO-10767-2 US-PATENT-APPL-SN-241061	c03 N72-28025	NASA-CASE-NPO-10633 US-PATENT-APPL-SN-885521 US-PATENT-CLASS-62-93 US-PATENT-CLASS-165-3 US-PATENT-CLASS-165-20 US-PATENT-3,675,712
c09 N72-27226	NASA-CASE-LEW-10330-1 US-PATENT-APPL-SN-110402 US-PATENT-CLASS-336-60 US-PATENT-CLASS-336-198 US-PATENT-CLASS-336-220 US-PATENT-3,648,209	c09 N72-28225	NASA-CASE-HFS-20757 US-PATENT-APPL-SN-136006 US-PATENT-CLASS-339-75MP US-PATENT-CLASS-339-94M US-PATENT-CLASS-339-176MP US-PATENT-CLASS-339-218M US-PATENT-3,670,290
c09 N72-27227	NASA-CASE-KSC-10644 US-PATENT-APPL-SN-114849 US-PATENT-CLASS-307-92 US-PATENT-CLASS-307-118 US-PATENT-CLASS-340-240 US-PATENT-3,673,424	c10 N72-28240	US-PATENT-CLASS-3,670,290 NASA-CASE-ARC-10265-1 US-PATENT-APPL-SN-64709 US-PATENT-CLASS-324-41 US-PATENT-CLASS-340-258 US-PATENT-3,676,772
c09 N72-27228	NASA-CASE-NPO-10542 US-PATENT-APPL-SN-767741 US-PATENT-CLASS-310-4 US-PATENT-3,673,440	c10 N72-28241	NASA-CASE-GSC-10786-1 US-PATENT-APPL-SN-773072 US-PATENT-CLASS-330-29 US-PATENT-3,533,006
c10 N72-27246	NASA-CASE-ERC-10015-2 US-PATENT-APPL-SN-97343 US-PATENT-APPL-SN-763744 US-PATENT-CLASS-313-309 US-PATENT-CLASS-313-336 US-PATENT-CLASS-313-351 US-PATENT-CLASS-315-36 US-PATENT-3,671,798	c14 N72-28436	NASA-CASE-KLA-06683 US-PATENT-APPL-SN-10827 US-PATENT-CLASS-33-15A US-PATENT-CLASS-33-75R US-PATENT-3,675,332
c11 N72-27262	NASA-CASE-HFS-20620 US-PATENT-APPL-SN-154935 US-PATENT-CLASS-73-117.1 US-PATENT-CLASS-73-432SD US-PATENT-3,670,564	c14 N72-28437	NASA-CASE-ERC-10081 US-PATENT-APPL-SN-877990 US-PATENT-CLASS-73-355 US-PATENT-CLASS-325-363 US-PATENT-CLASS-343-100HE US-PATENT-CLASS-343-112D US-PATENT-3,665,867
c14 N72-27408	NASA-CASE-NPO-11147 US-PATENT-APPL-SN-63195 US-PATENT-CLASS-324-79R US-PATENT-CLASS-328-189 US-PATENT-CLASS-331-44 US-PATENT-3,670,241	c14 N72-28438	NASA-CASE-KLA-04980-2 US-PATENT-APPL-SN-577548 US-PATENT-APPL-SN-763040 US-PATENT-CLASS-148-187 US-PATENT-3,549,435
c14 N72-27409	NASA-CASE-NPO-11201 US-PATENT-APPL-SN-77220 US-PATENT-CLASS-250-203R US-PATENT-CLASS-250-225 US-PATENT-CLASS-350-147 US-PATENT-CLASS-356-141 US-PATENT-CLASS-356-152 US-PATENT-3,670,168	c15 N72-28495	NASA-CASE-HFS-14405 US-PATENT-APPL-SN-73283 US-PATENT-CLASS-74-469 US-PATENT-CLASS-214-1CM US-PATENT-3,631,737
c14 N72-27410	NASA-CASE-XLE-05230 US-PATENT-APPL-SN-877717 US-PATENT-CLASS-136-233 US-PATENT-3,671,329	c15 N72-28496	NASA-CASE-HFS-20433 US-PATENT-APPL-SN-114847 US-PATENT-CLASS-52-1 US-PATENT-CLASS-52-573 US-PATENT-3,675,376
c14 N72-27411	NASA-CASE-HSC-12293-1 US-PATENT-APPL-SN-59956 US-PATENT-CLASS-250-205	c16 N72-28521	NASA-CASE-NPO-11437

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-63144		US-PATENT-CLASS-317-235R
	US-PATENT-CLASS-330-4		US-PATENT-3,686,542
	US-PATENT-CLASS-331-94	c15 N72-31483	NASA-CASE-LAR-10061-1
c17 N72-28535	US-PATENT-3,676,787		US-PATENT-APPL-SN-104047
	NASA-CASE-XLE-06461-2		US-PATENT-CLASS-251-86
	US-PATENT-APPL-SN-156778		US-PATENT-CLASS-251-331
	US-PATENT-APPL-SN-853855		US-PATENT-3,680,830
	US-PATENT-CLASS-266-24	c21 N72-31637	NASA-CASE-GSC-10945-1
	US-PATENT-3,675,910		US-PATENT-APPL-SN-75431
c17 N72-28536	NASA-CASE-XLE-03940-2		US-PATENT-CLASS-60-23
	US-PATENT-APPL-SN-539255		US-PATENT-CLASS-60-26
	US-PATENT-APPL-SN-793657		US-PATENT-3,678,685
	US-PATENT-CLASS-29-182.5	c07 N72-32169	NASA-CASE-NPO-11361
	US-PATENT-3,676,084		US-PATENT-APPL-SN-112988
c24 N72-28714	NASA-CASE-LRW-10518-2		US-PATENT-CLASS-343-781
	US-PATENT-APPL-SN-266927		US-PATENT-CLASS-343-837
c26 N72-28761	NASA-CASE-NPO-11775		US-PATENT-CLASS-343-840
	US-PATENT-APPL-SN-162230		US-PATENT-CLASS-343-915
	US-PATENT-CLASS-29-570		US-PATENT-3,680,144
	US-PATENT-CLASS-317-230	c14 N72-32452	NASA-CASE-MPS-15162
	US-PATENT-CLASS-317-261		US-PATENT-APPL-SN-100639
	US-PATENT-3,676,754		US-PATENT-CLASS-350-79
c26 N72-28762	NASA-CASE-LAR-10294-1		US-PATENT-CLASS-356-241
	US-PATENT-APPL-SN-796685		US-PATENT-3,694,094
	US-PATENT-CLASS-29-25.42	c15 N72-32487	NASA-CASE-LAR-10541-1
	US-PATENT-CLASS-106-39		US-PATENT-APPL-SN-138229
	US-PATENT-CLASS-106-46		US-PATENT-CLASS-118-49.1
	US-PATENT-CLASS-117-212		US-PATENT-CLASS-204-298
	US-PATENT-CLASS-117-217		US-PATENT-CLASS-219-121P
	US-PATENT-3,649,353		US-PATENT-CLASS-219-273
c09 N72-29172	NASA-CASE-LAR-10511-1		US-PATENT-3,690,291
	US-PATENT-APPL-SN-41345	c25 N72-32688	NASA-CASE-MPS-20589
	US-PATENT-CLASS-333-24R		US-PATENT-APPL-SN-103077
	US-PATENT-CLASS-333-98P		US-PATENT-CLASS-313-231
	US-PATENT-CLASS-333-98R		US-PATENT-CLASS-315-111
	US-PATENT-3,676,809		US-PATENT-3,693,002
c14 N72-29464	NASA-CASE-ARC-10017-1	c04 N72-33072	NASA-CASE-ERC-10338
	US-PATENT-APPL-SN-55536		US-PATENT-APPL-SN-50339
	US-PATENT-CLASS-250-41.9D		US-PATENT-CLASS-23-109
	US-PATENT-CLASS-250-71.5R		US-PATENT-3,679,360
	US-PATENT-CLASS-313-356	c05 N72-33096	NASA-CASE-MSC-13540-1
	US-PATENT-3,676,674		US-PATENT-APPL-SN-68023
c15 N72-29488	NASA-CASE-XLE-10326-2		US-PATENT-CLASS-99-80PS
	US-PATENT-APPL-SN-54540		US-PATENT-3,692,533
	US-PATENT-APPL-SN-723465	c07 N72-33146	NASA-CASE-MSC-12259-2
	US-PATENT-CLASS-277-25		US-PATENT-APPL-SN-61895
	US-PATENT-CLASS-277-27		US-PATENT-APPL-SN-853763
	US-PATENT-CLASS-277-74		US-PATENT-CLASS-325-373
	US-PATENT-3,675,935		US-PATENT-3,694,753
c06 N72-31140	NASA-CASE-MSC-13335-1	c08 N72-33172	NASA-CASE-NPO-11630
	US-PATENT-APPL-SN-55806		US-PATENT-APPL-SN-143078
	US-PATENT-CLASS-55-16		US-PATENT-CLASS-179-15.55R
	US-PATENT-CLASS-55-55		US-PATENT-3,694,581
	US-PATENT-3,678,654	c09 N72-33204	NASA-CASE-NPO-11129
c06 N72-31141	NASA-CASE-ARC-10308-1		US-PATENT-APPL-SN-883523
	US-PATENT-APPL-SN-134568		US-PATENT-CLASS-307-262
	US-PATENT-CLASS-250-43.5R		US-PATENT-CLASS-307-295
	US-PATENT-CLASS-356-51		US-PATENT-CLASS-328-24
	US-PATENT-3,679,899		US-PATENT-CLASS-328-155
c08 N72-31226	NASA-CASE-NPO-11016	c00 N72-33205	US-PATENT-3,621,406
	US-PATENT-APPL-SN-889584		NASA-CASE-GSC-10835-1
	US-PATENT-CLASS-235-92MT		US-PATENT-APPL-SN-116778
	US-PATENT-CLASS-235-150.1		US-PATENT-CLASS-317-101A
	US-PATENT-CLASS-235-151.1		US-PATENT-CLASS-317-235
	US-PATENT-CLASS-323-19		US-PATENT-CLASS-317-235A
	US-PATENT-CLASS-340-347AD		US-PATENT-CLASS-317-235AJ
	US-PATENT-3,681,581	c10 N72-33230	US-PATENT-3,694,700
c09 N72-31235	NASA-CASE-ERC-10214		NASA-CASE-GSC-11340-1
	US-PATENT-APPL-SN-863914		US-PATENT-APPL-SN-107379
	US-PATENT-CLASS-343-770		US-PATENT-CLASS-330-12
	US-PATENT-CLASS-343-771		US-PATENT-CLASS-331-115
	US-PATENT-CLASS-343-786		US-PATENT-CLASS-331-116R
	US-PATENT-CLASS-343-797		US-PATENT-CLASS-333-80T
	US-PATENT-CLASS-343-853		US-PATENT-3,693,105
	US-PATENT-3,680,142	c14 N72-33377	NASA-CASE-MPS-20760
c10 N72-31273	NASA-CASE-KSC-10647-1		US-PATENT-APPL-SN-99174
	US-PATENT-APPL-SN-778691		US-PATENT-CLASS-73-85
	US-PATENT-CLASS-178-7.5E		US-PATENT-CLASS-73-141AB
	US-PATENT-CLASS-315-22R		US-PATENT-3,693,418
	US-PATENT-CLASS-315-30R	c15 N72-33476	NASA-CASE-IGS-07805
	US-PATENT-CLASS-330-27R		US-PATENT-APPL-SN-104884
	US-PATENT-3,678,191		US-PATENT-CLASS-308-10
c14 N72-31446	NASA-CASE-ERC-10087-2		US-PATENT-3,694,041
	US-PATENT-APPL-SN-91642	c15 N72-33477	NASA-CASE-NPO-11340
	US-PATENT-APPL-SN-738315		US-PATENT-APPL-SN-147997
	US-PATENT-CLASS-29-588		US-PATENT-CLASS-60-1
	US-PATENT-CLASS-317-234D		US-PATENT-CLASS-60-36
	US-PATENT-CLASS-317-234G		US-PATENT-CLASS-137-13
	US-PATENT-CLASS-317-235H		US-PATENT-CLASS-137-81.5

ACCESSION NUMBER INDEX

c24 N72-33681	US-PATENT-3,693,346 NASA-CASE-LEW-10518-1 US-PATENT-APPL-SN-863280 US-PATENT-CLASS-176-11 US-PATENT-3,694,313	c15 N73-12489	US-PATENT-3,700,291 NASA-CASE-MSC-12357 US-PATENT-APPL-SN-662763 US-PATENT-CLASS-264-28 US-PATENT-CLASS-264-36 US-PATENT-CLASS-264-40 US-PATENT-CLASS-264-102 US-PATENT-3,697,630
c25 N72-33696	NASA-CASE-GSC-11291-1 US-PATENT-APPL-SN-102412 US-PATENT-CLASS-250-83.6R US-PATENT-3,694,655	c15 N73-12492	NASA-CASE-XLA-8914 US-PATENT-APPL-SN-810576
c08 N73-12175	NASA-CASE-NPO-11406 US-PATENT-APPL-SN-95183 US-PATENT-CLASS-235-152 US-PATENT-CLASS-331-78 US-PATENT-CLASS-340-146.1A1 US-PATENT-3,700,869	c15 N73-12495	NASA-CASE-NPO-13086-1 US-PATENT-APPL-SN-292477
c08 N73-12176	NASA-CASE-KSC-10595 US-PATENT-APPL-SN-98772 US-PATENT-CLASS-235-155 US-PATENT-CLASS-340-347DD US-PATENT-3,697,733	c15 N73-12496	NASA-CASE-LAR-10961-1 US-PATENT-APPL-SN-308363
c08 N73-12177	NASA-CASE-NPO-11371 US-PATENT-APPL-SN-117575 US-PATENT-CLASS-340-146.1A0 US-PATENT-CLASS-340-146.1AV US-PATENT-3,697,950	c17 N73-12547	NASA-CASE-LAR-10539-1 US-PATENT-APPL-SN-136085 US-PATENT-CLASS-23-230R US-PATENT-3,701,631
c09 N73-12211	NASA-CASE-ERC-10412-1 US-PATENT-APPL-SN-72024 US-PATENT-CLASS-343-5DP US-PATENT-CLASS-343-11R US-PATENT-CLASS-343-11VB US-PATENT-3,696,418	c18 N73-12604	NASA-CASE-MFS-20408 US-PATENT-APPL-SN-71048 US-PATENT-CLASS-161-93 US-PATENT-3,700,538
c09 N73-12214	NASA-CASE-NPO-13091-1 US-PATENT-APPL-SN-290022	c30 N73-12884	NASA-CASE-MSC-12391 US-PATENT-APPL-SN-106465 US-PATENT-CLASS-244-155 US-PATENT-3,700,193
c09 N73-12216	NASA-CASE-LAR-11084-1 US-PATENT-APPL-SN-308362	c02 N73-13008	NASA-CASE-GSC-11077-1 US-PATENT-APPL-SN-127618 US-PATENT-CLASS-244-32 US-PATENT-3,698,667
c10 N73-12244	NASA-CASE-NPO-11631 US-PATENT-APPL-SN-123253 US-PATENT-CLASS-179-1P US-PATENT-CLASS-325-473 US-PATENT-CLASS-325-480 US-PATENT-3,700,812	c02 N73-13023	NASA-CASE-LAR-10531-1 US-PATENT-APPL-SN-302720
c11 N73-12264	NASA-CASE-LAR-10348-1 US-PATENT-APPL-SN-70032 US-PATENT-CLASS-73-147 US-PATENT-3,695,101	c05 N73-13114	NASA-CASE-MSC-13604-1 US-PATENT-APPL-SN-78717 US-PATENT-CLASS-35-22R US-PATENT-CLASS-128-2N US-PATENT-CLASS-273-1E US-PATENT-3,698,385
c11 N73-12265	NASA-CASE-NPO-10890 US-PATENT-APPL-SN-99903 US-PATENT-CLASS-52-171 US-PATENT-CLASS-137-559 US-PATENT-CLASS-219-203 US-PATENT-CLASS-219-522 US-PATENT-3,696,833	c06 N73-13128	NASA-CASE-GSC-11214-1 US-PATENT-APPL-SN-115134 US-PATENT-CLASS-117-35R US-PATENT-3,702,775
c14 N73-12444	NASA-CASE-GSC-10903-1 US-PATENT-APPL-SN-114846 US-PATENT-CLASS-73-421.5 US-PATENT-CLASS-250-41.96 US-PATENT-CLASS-250-41.9S US-PATENT-3,700,893	c06 N73-13129	NASA-CASE-XNP-08124-2 US-PATENT-APPL-SN-97829 US-PATENT-CLASS-75-66 US-PATENT-3,702,762
c14 N73-12445	NASA-CASE-LAR-10728-1 US-PATENT-APPL-SN-112998 US-PATENT-CLASS-250-83.3H US-PATENT-CLASS-250-83.3R US-PATENT-CLASS-250-83R US-PATENT-3,700,897	c07 N73-13149	NASA-CASE-NPO-11302-1 US-PATENT-APPL-SN-70967 US-PATENT-CLASS-178-69.5 US-PATENT-CLASS-235-150.53 US-PATENT-CLASS-235-181 US-PATENT-CLASS-325-325 US-PATENT-CLASS-340-146.1 US-PATENT-3,701,894
c14 N73-12446	NASA-CASE-NPO-11239 US-PATENT-APPL-SN-89211 US-PATENT-CLASS-356-106 US-PATENT-CLASS-356-114 US-PATENT-3,700,334	c08 N73-13187	NASA-CASE-GSC-10975-1 US-PATENT-APPL-SN-100996 US-PATENT-CLASS-340-172.5 US-PATENT-3,702,463
c14 N73-12447	NASA-CASE-NPO-11493 US-PATENT-APPL-SN-151413 US-PATENT-CLASS-136-224 US-PATENT-3,700,503	c09 N73-13208	NASA-CASE-LEW-11192-1 US-PATENT-APPL-SN-198285 US-PATENT-CLASS-315-3.5 US-PATENT-CLASS-315-5.38 US-PATENT-3,702,951
c15 N73-12486	NASA-CASE-KSC-10615 US-PATENT-APPL-SN-103078 US-PATENT-CLASS-62-7 US-PATENT-CLASS-62-45 US-PATENT-CLASS-244-1SB US-PATENT-CLASS-244-135 US-PATENT-3,697,021	c09 N73-13209	NASA-CASE-XLA-05099 US-PATENT-APPL-SN-98798 US-PATENT-CLASS-235-152 US-PATENT-CLASS-307-207 US-PATENT-CLASS-307-215 US-PATENT-3,700,868
c15 N73-12487	NASA-CASE-PRC-10019 US-PATENT-APPL-SN-880398 US-PATENT-CLASS-204-192 US-PATENT-3,700,575	c10 N73-13235	NASA-CASE-KSC-10003 US-PATENT-APPL-SN-60883 US-PATENT-CLASS-178-DIG.6 US-PATENT-CLASS-178-6 US-PATENT-CLASS-307-242 US-PATENT-CLASS-307-259 US-PATENT-CLASS-328-104 US-PATENT-CLASS-328-154 US-PATENT-3,702,898
c15 N73-12488	NASA-CASE-ARC-10345-1 US-PATENT-APPL-SN-193671 US-PATENT-CLASS-74-5P US-PATENT-CLASS-287-85R US-PATENT-CLASS-308-2A	c11 N73-13257	NASA-CASE-LAR-10574-1 US-PATENT-APPL-SN-66206 US-PATENT-CLASS-244-1SS US-PATENT-3,698,659
		c14 N73-13415	NASA-CASE-LAR-10855-1 US-PATENT-APPL-SN-166541 US-PATENT-CLASS-73-147 US-PATENT-CLASS-73-182 US-PATENT-CLASS-73-189 US-PATENT-CLASS-73-212 US-PATENT-3,699,811

ACCESSION NUMBER INDEX

c14 N73-13416	NASA-CASE-GSC-11302-1 US-PATENT-APPL-SN-168650 US-PATENT-CLASS-73-71.6 US-PATENT-3,699,807	c23 N73-13661	NASA-CASE-HSC-12404-1 US-PATENT-APPL-SN-142662 US-PATENT-CLASS-356-1065 US-PATENT-3,702,735		
c14 N73-13417	NASA-CASE-KLE-05230-2 US-PATENT-APPL-SN-147099 US-PATENT-APPL-SN-877717 US-PATENT-CLASS-29-573 US-PATENT-CLASS-29-624 US-PATENT-CLASS-136-233 US-PATENT-3,699,645	c23 N73-13662	NASA-CASE-HFS-20243 US-PATENT-APPL-SN-59894 US-PATENT-CLASS-250-51.5 US-PATENT-CLASS-250-52 US-PATENT-3,702,933		
c14 N73-13418	NASA-CASE-HFS-14216 US-PATENT-APPL-SN-50208 US-PATENT-CLASS-92-49 US-PATENT-CLASS-137-81 US-PATENT-CLASS-137-487.5 US-PATENT-3,698,412	c28 N73-13773	NASA-CASE-LEW-10374-1 US-PATENT-APPL-SN-107380 US-PATENT-CLASS-60-211 US-PATENT-CLASS-60-240 US-PATENT-CLASS-60-243 US-PATENT-CLASS-137-81.5 US-PATENT-3,702,536		
c14 N73-13420	NASA-CASE-NPO-11418-1 US-PATENT-APPL-SN-193947 US-PATENT-CLASS-333-81B US-PATENT-CLASS-333-98R US-PATENT-3,702,979	c31 N73-13898	NASA-CASE-LAR-10549-1 US-PATENT-APPL-SN-108824 US-PATENT-CLASS-60-291 US-PATENT-CLASS-244-139 US-PATENT-3,700,192		
c14 N73-13435	NASA-CASE-GSC-11533-1 US-PATENT-APPL-SN-305013	c32 N73-13921	NASA-CASE-HSC-12233-2 US-PATENT-APPL-SN-107298 US-PATENT-CLASS-52-284 US-PATENT-CLASS-52-594 US-PATENT-CLASS-229-DIG. 11 US-PATENT-3,702,520		
c15 N73-13462	NASA-CASE-NPO-11479 US-PATENT-APPL-SN-170440 US-PATENT-CLASS-137-81.5 US-PATENT-CLASS-137-608 US-PATENT-CLASS-138-45 US-PATENT-CLASS-251-122 US-PATENT-3,700,005	c32 N73-13929	NASA-CASE-LAR-11052-1 US-PATENT-APPL-SN-310611	c07 N73-14130	NASA-CASE-NPO-11661 US-PATENT-APPL-SN-200682 US-PATENT-CLASS-343-782 US-PATENT-CLASS-343-837 US-PATENT-CLASS-343-915 US-PATENT-3,705,406
c15 N73-13463	NASA-CASE-HFS-20317 US-PATENT-APPL-SN-67730 US-PATENT-CLASS-72-447 US-PATENT-CLASS-72-476 US-PATENT-CLASS-173-131 US-PATENT-3,699,799	c09 N73-14214	NASA-CASE-ARC-10467-1 US-PATENT-APPL-SN-212028 US-PATENT-CLASS-250-205 US-PATENT-CLASS-250-211J US-PATENT-CLASS-250-217SS US-PATENT-CLASS-307-310 US-PATENT-CLASS-307-311 US-PATENT-3,705,316	c09 N73-14215	NASA-CASE-XKS-00348 US-PATENT-APPL-SN-209802 US-PATENT-CLASS-40-130 US-PATENT-3,137,082
c15 N73-13464	NASA-CASE-NPO-10812 US-PATENT-APPL-SN-129073 US-PATENT-CLASS-72-258 US-PATENT-CLASS-425-113 US-PATENT-CLASS-425-133 US-PATENT-CLASS-425-176 US-PATENT-3,698,848	c14 N73-14427	NASA-CASE-NPO-10758 US-PATENT-APPL-SN-81096 US-PATENT-CLASS-95-12.5 US-PATENT-CLASS-95-59 US-PATENT-CLASS-352-169 US-PATENT-3,704,659	c14 N73-14428	NASA-CASE-NPO-10764-1 US-PATENT-APPL-SN-836280 US-PATENT-CLASS-252-408 US-PATENT-3,700,603
c15 N73-13465	NASA-CASE-LEW-10805-1 US-PATENT-APPL-SN-29917 US-PATENT-CLASS-148-11.5R US-PATENT-3,702,791	c14 N73-14429	NASA-CASE-NPO-11387 US-PATENT-APPL-SN-142719 US-PATENT-CLASS-73-57 US-PATENT-CLASS-73-60 US-PATENT-3,706,221	c15 N73-14468	NASA-CASE-LAR-10103-1 US-PATENT-APPL-SN-103230 US-PATENT-CLASS-29-203V US-PATENT-CLASS-219-101 US-PATENT-CLASS-219-119 US-PATENT-3,705,288
c15 N73-13466	NASA-CASE-HFS-20944 US-PATENT-APPL-SN-148756 US-PATENT-CLASS-91-363A US-PATENT-CLASS-91-448 US-PATENT-3,702,575	c15 N73-14469	NASA-CASE-GSC-10791-1 US-PATENT-APPL-SN-84289 US-PATENT-CLASS-29-589 US-PATENT-CLASS-29-591 US-PATENT-CLASS-174-52S US-PATENT-CLASS-317-234A US-PATENT-CLASS-317-234G US-PATENT-3,705,255	c18 N73-14584	NASA-CASE-LAR-10894-1 US-PATENT-APPL-SN-189375 US-PATENT-CLASS-106-39R US-PATENT-CLASS-106-55 US-PATENT-CLASS-106-58 US-PATENT-CLASS-106-63 US-PATENT-CLASS-264-DIG. 36 US-PATENT-CLASS-264-65 US-PATENT-3,706,583
c15 N73-13467	NASA-CASE-NPO-11369 US-PATENT-APPL-SN-129072 US-PATENT-CLASS-60-1 US-PATENT-CLASS-60-23 US-PATENT-CLASS-60-37 US-PATENT-3,702,532	c21 N73-14692	NASA-CASE-ERC-10392 US-PATENT-APPL-SN-36534 US-PATENT-CLASS-340-27AT US-PATENT-3,706,970		
c16 N73-13489	NASA-CASE-HQN-10654-1 US-PATENT-APPL-SN-182978 US-PATENT-CLASS-324-.5R US-PATENT-CLASS-331-98 US-PATENT-3,702,972				
c18 N73-13562	NASA-CASE-ARC-10196-1 US-PATENT-APPL-SN-115082 US-PATENT-CLASS-260-2.5P US-PATENT-3,702,841				
c21 N73-13643	NASA-CASE-HQN-10703 US-PATENT-APPL-SN-156724 US-PATENT-CLASS-340-27HA US-PATENT-CLASS-340-33 US-PATENT-CLASS-340-97 US-PATENT-CLASS-343-112CA US-PATENT-3,699,511				
c21 N73-13644	NASA-CASE-NPO-11481 US-PATENT-APPL-SN-134571 US-PATENT-CLASS-74-5.22 US-PATENT-CLASS-179-100.2A US-PATENT-CLASS-340-174.1R US-PATENT-CLASS-346-74HD US-PATENT-CLASS-346-138 US-PATENT-3,697,968				
c23 N73-13660	NASA-CASE-HFS-20809 US-PATENT-APPL-SN-173185 US-PATENT-CLASS-315-169R US-PATENT-CLASS-315-169TV US-PATENT-CLASS-317-101A US-PATENT-3,700,961				

ACCESSION NUMBER INDEX

c31 N73-14853	NASA-CASE-GSC-10590-1 US-PATENT-APPL-SN-130353 US-PATENT-CLASS-102-49.5 US-PATENT-3,706,281	US-PATENT-APPL-SN-200717 US-PATENT-CLASS-343-754 US-PATENT-CLASS-343-839 US-PATENT-CLASS-343-854 US-PATENT-CLASS-343-895 US-PATENT-3,713,163
c31 N73-14854	NASA-CASE-NSC-12433 US-PATENT-APPL-SN-103551 US-PATENT-CLASS-244-155 US-PATENT-3,702,688	NASA-CASE-MFS-20407 US-PATENT-APPL-SN-116777 US-PATENT-CLASS-317-235A US-PATENT-CLASS-317-235B US-PATENT-CLASS-317-235C US-PATENT-CLASS-317-235T US-PATENT-CLASS-317-235UA US-PATENT-3,714,526
c31 N73-14855	NASA-CASE-NPO-10680 US-PATENT-APPL-SN-104048 US-PATENT-CLASS-74-2 US-PATENT-3,706,230	
c09 N73-15235	NASA-CASE-NPO-12106 US-PATENT-APPL-SN-175881 US-PATENT-CLASS-317-234V US-PATENT-CLASS-317-235AG US-PATENT-CLASS-317-235K US-PATENT-CLASS-331-90 US-PATENT-CLASS-331-107G US-PATENT-CLASS-331-177R US-PATENT-3,694,771	c14 N73-19419
c06 N73-16106	NASA-CASE-LAR-10668-1 US-PATENT-APPL-SN-172459 US-PATENT-CLASS-23-232E US-PATENT-CLASS-23-232R US-PATENT-CLASS-23-254E US-PATENT-CLASS-23-254R US-PATENT-CLASS-250-71R US-PATENT-CLASS-250-83.30V US-PATENT-3,709,663	c14 N73-19420
c07 N73-16121	NASA-CASE-NPO-11572 US-PATENT-APPL-SN-125234 US-PATENT-CLASS-179-15AN US-PATENT-CLASS-179-15BC US-PATENT-CLASS-325-60 US-PATENT-CLASS-343-200 US-PATENT-3,710,257	c14 N73-19421
c10 N73-16205	NASA-CASE-NPO-11282 US-PATENT-APPL-SN-101354 US-PATENT-CLASS-325-346 US-PATENT-CLASS-325-419 US-PATENT-3,710,261	c15 N73-19457
c10 N73-16206	NASA-CASE-ERC-10285 US-PATENT-APPL-SN-55333 US-PATENT-CLASS-331-45 US-PATENT-CLASS-343-100R US-PATENT-CLASS-343-100SA US-PATENT-CLASS-343-853 US-PATENT-3,710,329	c15 N73-19458
c14 N73-16483	NASA-CASE-ERC-10226-1 US-PATENT-APPL-SN-124909 US-PATENT-APPL-SN-808822 US-PATENT-CLASS-250-209 US-PATENT-CLASS-250-215 US-PATENT-CLASS-250-217 US-PATENT-CLASS-315-153 US-PATENT-CLASS-340-25 US-PATENT-CLASS-340-27R US-PATENT-3,708,671	c21 N73-19630
c14 N73-16484	NASA-CASE-LAR-10739-1 US-PATENT-APPL-SN-134567 US-PATENT-CLASS-250-217F US-PATENT-CLASS-340-228S US-PATENT-CLASS-340-418 US-PATENT-3,708,674	c28 N73-19793
c16 N73-16536	NASA-CASE-LAR-10311-1 US-PATENT-APPL-SN-31702 US-PATENT-CLASS-250-199 US-PATENT-CLASS-340-171 US-PATENT-CLASS-350-293 US-PATENT-3,710,122	c28 N73-19819
c27 N73-16764	NASA-CASE-NPO-12015 US-PATENT-APPL-SN-74862 US-PATENT-CLASS-149-19 US-PATENT-CLASS-149-36 US-PATENT-3,708,359	c03 N73-20039
c33 N73-16918	NASA-CASE-NSC-15567-1 US-PATENT-APPL-SN-87551 US-PATENT-CLASS-204-324 US-PATENT-CLASS-204-325 US-PATENT-CLASS-204-328 US-PATENT-3,708,419	c03 N73-20040
c02 N73-19004	NASA-CASE-ERC-10439 US-PATENT-APPL-SN-54271 US-PATENT-CLASS-244-17.13 US-PATENT-CLASS-244-77D US-PATENT-CLASS-318-489 US-PATENT-3,711,042	c05 N73-20137
c09 N73-19234	NASA-CASE-GSC-11013-1	c07 N73-20174
		c07 N73-20175
		c07 N73-20176
		c08 N73-20217

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-84002		US-PATENT-CLASS-343-915
	US-PATENT-CLASS-235-92FQ		US-PATENT-3, 729, 743
	US-PATENT-CLASS-235-92R	c14 N73-24472	NASA-CASE-LEW-11072-1
	US-PATENT-CLASS-235-92T		US-PATENT-APPL-SN-104885
	US-PATENT-CLASS-340-347AD		US-PATENT-CLASS-136-225
c09 N73-20231	US-PATENT-3, 714, 645		US-PATENT-3, 729, 343
	NASA-CASE-ARC-10268-1	c14 N73-24473	NASA-CASE-NPS-20418
	US-PATENT-APPL-SN-80368		US-PATENT-APPL-SN-162101
	US-PATENT-CLASS-328-167		US-PATENT-CLASS-128-206P
	US-PATENT-CLASS-330-86		US-PATENT-CLASS-324-78E
	US-PATENT-CLASS-330-109		US-PATENT-3, 729, 676
c09 N73-20232	US-PATENT-3, 714, 588	c15 N73-24513	NASA-CASE-NPO-11417
	NASA-CASE-MPS-21433		US-PATENT-APPL-SN-120241
	US-PATENT-APPL-SN-236281		US-PATENT-CLASS-60-25
	US-PATENT-CLASS-307-230		US-PATENT-CLASS-417-391
	US-PATENT-CLASS-307-304		US-PATENT-3, 732, 040
	US-PATENT-CLASS-330-20	c17 N73-24569	NASA-CASE-LEW-10920-1
	US-PATENT-CLASS-330-22		US-PATENT-APPL-SN-106424
	US-PATENT-CLASS-330-30D		US-PATENT-CLASS-204-192
	US-PATENT-CLASS-330-35		US-PATENT-3, 732, 158
	US-PATENT-CLASS-330-40	c28 N73-24783	NASA-CASE-NPO-11880
	US-PATENT-CLASS-330-80T		US-PATENT-APPL-SN-209535
c10 N73-20253	US-PATENT-3, 715, 693		US-PATENT-CLASS-60-202
	NASA-CASE-LAR-10310-1		US-PATENT-CLASS-313-DIG.8
	US-PATENT-APPL-SN-147103		US-PATENT-CLASS-313-63
	US-PATENT-CLASS-235-197		US-PATENT-CLASS-313-231
c10 N73-20254	US-PATENT-3, 714, 405		US-PATENT-3, 313, 204
	NASA-CASE-NPO-11868		US-PATENT-3, 728, 861
	US-PATENT-APPL-SN-192101	c28 N73-24784	NASA-CASE-NPO-11559
	US-PATENT-CLASS-307-221R		US-PATENT-APPL-SN-147996
	US-PATENT-CLASS-328-37		US-PATENT-CLASS-60-254
	US-PATENT-CLASS-328-61		US-PATENT-CLASS-60-256
	US-PATENT-CLASS-328-187		US-PATENT-CLASS-102-49.7
c11 N73-20267	US-PATENT-3, 718, 863		US-PATENT-CLASS-102-49.8
	NASA-CASE-MPS-21362		US-PATENT-3, 729, 935
	US-PATENT-APPL-SN-211411	c05 N73-25125	NASA-CASE-MPS-20332-2
	US-PATENT-CLASS-73-432SD		US-PATENT-APPL-SN-195061
c14 N73-20474	US-PATENT-3, 714, 833		US-PATENT-APPL-SN-869260
	NASA-CASE-ERC-10350		US-PATENT-CLASS-2-2.1A
	US-PATENT-APPL-SN-55535		US-PATENT-CLASS-128-142.5
	US-PATENT-CLASS-340-27R		US-PATENT-CLASS-137-538
c14 N73-20475	US-PATENT-3, 714, 624		US-PATENT-3, 720, 208
	NASA-CASE-LAR-10726-1	c07 N73-25160	NASA-CASE-ARC-10097-2
	US-PATENT-APPL-SN-146935		US-PATENT-APPL-SN-115083
	US-PATENT-CLASS-250-83.3H		US-PATENT-APPL-SN-768662
	US-PATENT-CLASS-250-231		US-PATENT-CLASS-325-45
c14 N73-20476	US-PATENT-3, 714, 432		US-PATENT-CLASS-325-61
	NASA-CASE-MPS-20673		US-PATENT-CLASS-325-113
	US-PATENT-APPL-SN-94049		US-PATENT-CLASS-325-139
	US-PATENT-CLASS-73-90		US-PATENT-CLASS-340-207
	US-PATENT-CLASS-73-91		US-PATENT-CLASS-340-258R
c14 N73-20477	US-PATENT-3, 714, 821	c07 N73-25161	US-PATENT-3, 719, 891
	NASA-CASE-ARC-10443-1		NASA-CASE-NPO-11707
	US-PATENT-APPL-SN-128419		US-PATENT-APPL-SN-196399
	US-PATENT-CLASS-250-83.3R		US-PATENT-CLASS-343-6.5R
	US-PATENT-CLASS-250-83R		US-PATENT-CLASS-343-6.8R
c14 N73-20478	US-PATENT-3, 715, 590		US-PATENT-3, 729, 736
	NASA-CASE-NPO-10985	c08 N73-25206	NASA-CASE-NPO-11897
	US-PATENT-APPL-SN-74759		US-PATENT-APPL-SN-155565
	US-PATENT-CLASS-73-194E		US-PATENT-CLASS-235-10.2
	US-PATENT-CLASS-324-30R		US-PATENT-CLASS-235-92CV
	US-PATENT-CLASS-324-65P		US-PATENT-CLASS-235-92DH
c15 N73-20514	US-PATENT-3, 712, 132		US-PATENT-CLASS-235-92EA
	NASA-CASE-NPO-11213		US-PATENT-CLASS-235-92EV
	US-PATENT-APPL-SN-78703		US-PATENT-CLASS-235-92R
	US-PATENT-CLASS-195-127		US-PATENT-CLASS-235-151.27
c15 N73-20535	US-PATENT-3, 713, 987		US-PATENT-3, 729, 129
	NASA-CASE-LAR-11072-1	c10 N73-25240	NASA-CASE-HSC-12428-1
	US-PATENT-APPL-SN-280030		US-PATENT-APPL-SN-170681
c32 N73-20740	US-PATENT-3, 715, 915		US-PATENT-CLASS-179-15A
	NASA-CASE-LAR-10765-1		US-PATENT-CLASS-235-151.31
	US-PATENT-APPL-SN-138230		US-PATENT-CLASS-324-77R
	US-PATENT-CLASS-73-88A		US-PATENT-CLASS-324-78J
	US-PATENT-CLASS-356-32		US-PATENT-3, 732, 405
c23 N73-20741	US-PATENT-3, 715, 915	c10 N73-25241	NASA-CASE-GSC-11239-1
	NASA-CASE-ARC-10194-1		US-PATENT-APPL-SN-180683
	US-PATENT-APPL-SN-107659		US-PATENT-CLASS-325-67
	US-PATENT-CLASS-350-202		US-PATENT-CLASS-325-363
c31 N73-20880	US-PATENT-3, 715, 152		US-PATENT-3, 737, 781
	NASA-CASE-LAR-10788-1	c10 N73-25243	NASA-CASE-MPS-21919-1
c07 N73-22076	US-PATENT-APPL-SN-340865		US-PATENT-APPL-SN-193456
	NASA-CASE-NPO-10166-1		US-PATENT-CLASS-317-100
c27 N73-22710	US-PATENT-APPL-SN-192803		US-PATENT-CLASS-317-101DH
	NASA-CASE-NPO-10893		US-PATENT-3, 735, 206
	US-PATENT-APPL-SN-845584	c12 N73-25262	NASA-CASE-LAR-10578-1
	US-PATENT-CLASS-260-94.8		US-PATENT-APPL-SN-233098
c07 N73-24176	US-PATENT-3, 634, 383		US-PATENT-CLASS-73-147
	NASA-CASE-NPO-11751		US-PATENT-3, 731, 528
	US-PATENT-APPL-SN-192141	c14 N73-25460	NASA-CASE-MPS-20916
	US-PATENT-CLASS-343-DIG.2		

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-212165		US-PATENT-APPL-SN-226551
	US-PATENT-CLASS-73-189		US-PATENT-CLASS-260-46.5R
	US-PATENT-3,731,531		US-PATENT-3,733,350
c14 N73-25461	NASA-CASE-KSC-10108	c07 N73-26117	NASA-CASE-KSC-10392
	US-PATENT-APPL-SN-73922		US-PATENT-APPL-SN-181024
	US-PATENT-CLASS-343-6.8R		US-PATENT-CLASS-343-880
	US-PATENT-CLASS-343-14		US-PATENT-CLASS-343-883
	US-PATENT-CLASS-343-17.5		US-PATENT-CLASS-343-889
	US-PATENT-3,732,567		US-PATENT-CLASS-343-895
c14 N73-25462	NASA-CASE-NPO-11686		US-PATENT-3,737,912
	US-PATENT-APPL-SN-212900	c07 N73-26118	NASA-CASE-NPO-11548
	US-PATENT-CLASS-250-83.3H		US-PATENT-APPL-SN-151411
	US-PATENT-CLASS-250-203R		US-PATENT-CLASS-179-15A
	US-PATENT-CLASS-250-214		US-PATENT-CLASS-179-15BH
	US-PATENT-CLASS-250-214		US-PATENT-CLASS-325-40
	US-PATENT-CLASS-356-152		US-PATENT-CLASS-343-204
	US-PATENT-3,723,475		US-PATENT-3,737,776
c14 N73-25463	NASA-CASE-ARC-10278-1	c07 N73-26119	NASA-CASE-NPO-11426
	US-PATENT-APPL-SN-154933		US-PATENT-APPL-SN-89210
	US-PATENT-CLASS-356-110		US-PATENT-CLASS-250-199
	US-PATENT-3,729,260		US-PATENT-CLASS-331-94.5
c15 N73-25512	NASA-CASE-LAR-10129-1		US-PATENT-CLASS-332-7.51
	US-PATENT-APPL-SN-99201		US-PATENT-CLASS-356-4
	US-PATENT-CLASS-24-134R		US-PATENT-CLASS-356-5
	US-PATENT-CLASS-182-5		US-PATENT-3,737,231
	US-PATENT-CLASS-188-65.1	c08 N73-26175	NASA-CASE-NPO-11821-1
	US-PATENT-CLASS-254-156		US-PATENT-APPL-SN-236285
	US-PATENT-3,729,068		US-PATENT-CLASS-235-152
c15 N73-25513	NASA-CASE-GSC-11205-1		US-PATENT-CLASS-235-164
	US-PATENT-APPL-SN-107376		US-PATENT-CLASS-328-167
	US-PATENT-CLASS-188-266		US-PATENT-3,732,409
	US-PATENT-CLASS-244-15A	c08 N73-26176	NASA-CASE-NPO-11456
	US-PATENT-3,737,118		US-PATENT-APPL-SN-153543
c25 N73-25760	NASA-CASE-LEW-11180-1		US-PATENT-CLASS-340-172.5
	US-PATENT-APPL-SN-175852		US-PATENT-3,740,725
	US-PATENT-CLASS-60-202	c09 N73-26195	NASA-CASE-GSC-10990-1
	US-PATENT-CLASS-313-161		US-PATENT-APPL-SN-93329
	US-PATENT-CLASS-313-231		US-PATENT-CLASS-333-73R
	US-PATENT-3,735,591		US-PATENT-CLASS-333-73S
c33 N73-25952	NASA-CASE-LEW-10359-2		US-PATENT-CLASS-333-82A
	US-PATENT-APPL-SN-47063		US-PATENT-CLASS-333-84M
	US-PATENT-APPL-SN-150215		US-PATENT-3,737,815
	US-PATENT-CLASS-60-200A	c10 N73-26228	NASA-CASE-ERC-10403-1
	US-PATENT-CLASS-60-265		US-PATENT-APPL-SN-253405
	US-PATENT-CLASS-60-267		US-PATENT-CLASS-317-DIG.6
	US-PATENT-CLASS-62-467		US-PATENT-CLASS-321-11
	US-PATENT-CLASS-102-105		US-PATENT-CLASS-321-45C
	US-PATENT-CLASS-244-117A		US-PATENT-3,737,757
	US-PATENT-3,720,075	c10 N73-26229	NASA-CASE-NPO-11569
c02 N73-26004	NASA-CASE-LAR-10682-1		US-PATENT-APPL-SN-199957
	US-PATENT-APPL-SN-127915		US-PATENT-CLASS-307-220
	US-PATENT-CLASS-244-75A		US-PATENT-CLASS-307-233
	US-PATENT-CLASS-244-76C		US-PATENT-3,737,676
	US-PATENT-CLASS-244-77F	c10 N73-26230	NASA-CASE-MSC-13907-1
	US-PATENT-CLASS-244-77G		US-PATENT-APPL-SN-254177
	US-PATENT-3,734,432		US-PATENT-CLASS-235-186
c02 N73-26005	NASA-CASE-ARC-10470-1		US-PATENT-CLASS-235-194
	US-PATENT-APPL-SN-206279		US-PATENT-CLASS-235-197
	US-PATENT-CLASS-244-13		US-PATENT-3,737,639
	US-PATENT-CLASS-244-46	c11 N73-26238	NASA-CASE-NPO-11366
	US-PATENT-CLASS-244-55		US-PATENT-APPL-SN-144139
	US-PATENT-3,737,121		US-PATENT-CLASS-180-6.5
c02 N73-26006	NASA-CASE-MSC-12393-1		US-PATENT-CLASS-180-7R
	US-PATENT-APPL-SN-203405		US-PATENT-CLASS-180-8A
	US-PATENT-CLASS-9-2A		US-PATENT-CLASS-180-9.2P
	US-PATENT-CLASS-9-3		US-PATENT-CLASS-180-9.5
	US-PATENT-CLASS-9-11A		US-PATENT-CLASS-180-47
	US-PATENT-CLASS-114-122		US-PATENT-CLASS-305-35EB
	US-PATENT-3,736,607		US-PATENT-CLASS-305-39
c02 N73-26008	NASA-CASE-LAR-11087-1		US-PATENT-3,730,287
	US-PATENT-APPL-SN-367267	c14 N73-26430	NASA-CASE-NPO-11304
c05 N73-26071	NASA-CASE-ARC-10599-1		US-PATENT-APPL-SN-101214
	US-PATENT-APPL-SN-247481		US-PATENT-CLASS-219-50
	US-PATENT-CLASS-2-2.1		US-PATENT-CLASS-219-499
	US-PATENT-CLASS-62-89		US-PATENT-3,733,463
	US-PATENT-CLASS-62-176	c14 N73-26431	NASA-CASE-MSC-12363-1
	US-PATENT-CLASS-62-207		US-PATENT-APPL-SN-125236
	US-PATENT-CLASS-62-209		US-PATENT-CLASS-95-1.1
	US-PATENT-CLASS-62-259		US-PATENT-3,736,849
	US-PATENT-CLASS-165-46	c14 N73-26432	NASA-CASE-ERC-10276
	US-PATENT-3,736,764		US-PATENT-APPL-SN-24155
c05 N73-26072	NASA-CASE-ARC-10329-1		US-PATENT-CLASS-250-209
	US-PATENT-APPL-SN-159857		US-PATENT-CLASS-340-15.56C
	US-PATENT-CLASS-128-2.1R		US-PATENT-CLASS-343-100ME
	US-PATENT-CLASS-351-23		US-PATENT-3,737,905
	US-PATENT-CLASS-351-30	c15 N73-26472	NASA-CASE-KSC-10639
	US-PATENT-CLASS-351-36		US-PATENT-APPL-SN-181023
	US-PATENT-3,737,217		US-PATENT-CLASS-137-397
c06 N73-26100	NASA-CASE-GSC-11358-1		US-PATENT-CLASS-137-582

ACCESSION NUMBER INDEX

c18 N73-26572	US-PATENT-3,736,956 NASA-CASE-ARC-10304-1 US-PATENT-APPL-SN-180946 US-PATENT-CLASS-252-8.1 US-PATENT-3,730,891	c15 N73-27405	US-PATENT-CLASS-340-5C US-PATENT-3,744,294 NASA-CASE-NFS-20855 US-PATENT-APPL-SN-127647 US-PATENT-CLASS-53-22A US-PATENT-CLASS-53-112A US-PATENT-CLASS-219-348 US-PATENT-3,745,739
c26 N73-26751	NASA-CASE-NFS-20675 US-PATENT-APPL-SN-200085 US-PATENT-CLASS-250-219TH US-PATENT-CLASS-356-108 US-PATENT-CLASS-356-161 US-PATENT-CLASS-356-202 US-PATENT-3,737,237	c15 N73-27406	NASA-CASE-NPO-11377 US-PATENT-APPL-SN-187262 US-PATENT-CLASS-137-1 US-PATENT-CLASS-137-154 US-PATENT-CLASS-137-604 US-PATENT-3,744,510
c26 N73-26752	NASA-CASE-LEW-11726-1 US-PATENT-APPL-SN-280031 US-PATENT-CLASS-29-599 US-PATENT-CLASS-156-18 US-PATENT-CLASS-174-DIG.6 US-PATENT-CLASS-336-DIG.1 US-PATENT-CLASS-336-200 US-PATENT-3,737,824	c15 N73-27407	NASA-CASE-KSC-10752-1 US-PATENT-APPL-SN-372143 US-PATENT-CLASS-10953-1 US-PATENT-APPL-SN-163152 US-PATENT-CLASS-23-230R US-PATENT-3,744,972
c31 N73-26876	NASA-CASE-NFS-20863 US-PATENT-APPL-SN-159966 US-PATENT-CLASS-244-1SD US-PATENT-CLASS-244-137P US-PATENT-3,737,117	c27 N73-27695	NASA-CASE-LEW-11071-1 US-PATENT-APPL-SN-370581 NASA-CASE-XLE-10453-2 US-PATENT-APPL-SN-180473 US-PATENT-APPL-SN-758540 US-PATENT-CLASS-60-202 US-PATENT-CLASS-313-63 US-PATENT-CLASS-313-217 US-PATENT-CLASS-313-218 US-PATENT-CLASS-313-230 US-PATENT-CLASS-313-355 US-PATENT-3,744,247
c32 N73-26910	NASA-CASE-LAR-10756-1 US-PATENT-APPL-SN-160859 US-PATENT-CLASS-73-67.3 US-PATENT-CLASS-73-88.5R US-PATENT-CLASS-73-91 US-PATENT-CLASS-235-92HT US-PATENT-3,733,424	c28 N73-27699	NASA-CASE-LAR-10439-1 US-PATENT-APPL-SN-182033 US-PATENT-CLASS-73-86 US-PATENT-CLASS-73-339 US-PATENT-CLASS-73-432R US-PATENT-CLASS-356-72 US-PATENT-3,745,816
c33 N73-26958	NASA-CASE-NPO-11330 US-PATENT-APPL-SN-118269 US-PATENT-CLASS-285-DIG.21 US-PATENT-CLASS-285-316 US-PATENT-3,737,181	c33 N73-27796	NASA-CASE-NFS-21109-1 US-PATENT-APPL-SN-202769 US-PATENT-CLASS-73-379 US-PATENT-CLASS-128-2.05R US-PATENT-CLASS-128-2.06R US-PATENT-CLASS-272-73 US-PATENT-3,744,880
c04 N73-27052	NASA-CASE-GSC-11092-2 US-PATENT-APPL-SN-60950 US-PATENT-APPL-SN-139250 US-PATENT-CLASS-103.5R US-PATENT-3,745,090	c05 N73-27941	NASA-CASE-LEW-11669-1 US-PATENT-APPL-SN-198885 US-PATENT-CLASS-32-28 US-PATENT-CLASS-32-58 US-PATENT-CLASS-128-2 US-PATENT-CLASS-128-2A US-PATENT-CLASS-128-305 US-PATENT-3,736,938
c05 N73-27062	NASA-CASE-LEW-11669-1 US-PATENT-APPL-SN-198885 US-PATENT-CLASS-32-28 US-PATENT-CLASS-32-58 US-PATENT-CLASS-128-2 US-PATENT-CLASS-128-2A US-PATENT-CLASS-128-305 US-PATENT-3,736,938	c06 N73-27980	NASA-CASE-GSC-10225-1 US-PATENT-APPL-SN-710621 US-PATENT-CLASS-195-66R US-PATENT-3,745,089 NASA-CASE-ERC-10224-2 US-PATENT-APPL-SN-221833 US-PATENT-APPL-SN-868775 US-PATENT-CLASS-29-580 US-PATENT-CLASS-317-234G US-PATENT-CLASS-317-234L US-PATENT-CLASS-317-234M US-PATENT-CLASS-317-234N US-PATENT-CLASS-317-234R US-PATENT-3,742,316
c06 N73-27086	NASA-CASE-GSC-10225-1 US-PATENT-APPL-SN-710621 US-PATENT-CLASS-195-66R US-PATENT-3,745,089 NASA-CASE-ERC-10224-2 US-PATENT-APPL-SN-221833 US-PATENT-APPL-SN-868775 US-PATENT-CLASS-29-580 US-PATENT-CLASS-317-234G US-PATENT-CLASS-317-234L US-PATENT-CLASS-317-234M US-PATENT-CLASS-317-234N US-PATENT-CLASS-317-234R US-PATENT-3,742,316	c07 N73-28012	NASA-CASE-NPO-11593-1 US-PATENT-APPL-SN-172807 US-PATENT-CLASS-179-15FS US-PATENT-CLASS-325-419 US-PATENT-CLASS-329-122 US-PATENT-3,745,255
c09 N73-27150	NASA-CASE-ERC-10224-2 US-PATENT-APPL-SN-221833 US-PATENT-APPL-SN-868775 US-PATENT-CLASS-29-580 US-PATENT-CLASS-317-234G US-PATENT-CLASS-317-234L US-PATENT-CLASS-317-234M US-PATENT-CLASS-317-234N US-PATENT-CLASS-317-234R US-PATENT-3,742,316	c07 N73-28013	NASA-CASE-GSC-11046-1 US-PATENT-APPL-SN-182399 US-PATENT-CLASS-343-725 US-PATENT-CLASS-343-729 US-PATENT-CLASS-343-797 US-PATENT-CLASS-343-803 US-PATENT-CLASS-343-893 US-PATENT-3,747,111
c10 N73-27171	NASA-CASE-NPO-11941-1 US-PATENT-APPL-SN-241614 US-PATENT-CLASS-330-70CR US-PATENT-CLASS-331-17 US-PATENT-CLASS-331-25 US-PATENT-3,740,671	c08 N73-28045	NASA-CASE-XNP-00477 US-PATENT-APPL-SN-175497 US-PATENT-CLASS-340-347 US-PATENT-3,219,997
c14 N73-27376	NASA-CASE-HQN-10037-1 US-PATENT-APPL-SN-235957 US-PATENT-CLASS-73-28 US-PATENT-3,741,001	c09 N73-28083	NASA-CASE-GSC-11215-1 US-PATENT-APPL-SN-114873 US-PATENT-CLASS-29-628 US-PATENT-CLASS-29-629 US-PATENT-CLASS-29-630 US-PATENT-CLASS-29-630A US-PATENT-3,744,128
c14 N73-27377	NASA-CASE-NFS-21046-1 US-PATENT-APPL-SN-156725 US-PATENT-CLASS-35-12C US-PATENT-CLASS-272-73 US-PATENT-3,744,794	c09 N73-28084	NASA-CASE-XNP-03623
c14 N73-27378	NASA-CASE-KSC-10626 US-PATENT-APPL-SN-180963 US-PATENT-CLASS-222-414 US-PATENT-CLASS-244-1SS US-PATENT-CLASS-244-135 US-PATENT-3,744,738		
c14 N73-27379	NASA-CASE-PRC-10060-1 US-PATENT-APPL-SN-189290 US-PATENT-CLASS-73-1DV US-PATENT-CLASS-179-175.1A		

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-471154	c06 N73-30102	NASA-CASE-MFS-11492
	US-PATENT-CLASS-178-69.5		US-PATENT-APPL-SN-707440
	US-PATENT-3,402,265		JS-PATENT-CLASS-260-2
c12 N73-28144	NASA-CASE-LAR-10612-1		US-PATENT-3,577,356
	US-PATENT-APPL-SN-233173	c06 N73-30103	NASA-CASE-MFS-10509
	US-PATENT-CLASS-73-147		US-PATENT-APPL-SN-605964
	US-PATENT-3,744,305		JS-PATENT-CLASS-260-77.5
c14 N73-28486	NASA-CASE-NPO-11749		US-PATENT-3,475,384
	US-PATENT-APPL-SN-175267	c07 N73-30113	NASA-CASE-NPO-11628-1
	US-PATENT-CLASS-73-15R		US-PATENT-APPL-SN-207211
	US-PATENT-CLASS-324-52		US-PATENT-CLASS-325-420
	US-PATENT-3,737,762		US-PATENT-CLASS-325-422
c14 N73-28487	NASA-CASE-XLA-08916-2		US-PATENT-CLASS-329-120
	US-PATENT-APPL-SN-97472		US-PATENT-3,746,998
	US-PATENT-APPL-SN-777765	c07 N73-30115	NASA-CASE-KSC-10654-1
	US-PATENT-CLASS-73-170R		US-PATENT-APPL-SN-250766
	US-PATENT-CLASS-73-432R		US-PATENT-CLASS-178-DIG.23
	US-PATENT-3,744,320		US-PATENT-CLASS-178-6.6DD
c14 N73-28488	NASA-CASE-LEW-11159-1		US-PATENT-CLASS-178-6.8
	US-PATENT-APPL-SN-104346		US-PATENT-CLASS-179-15BS
	US-PATENT-CLASS-250-336		US-PATENT-3,749,831
	US-PATENT-CLASS-307-308	c08 N73-30135	NASA-CASE-NPO-10817-1
	US-PATENT-3,745,357		US-PATENT-APPL-SN-82649
c14 N73-28489	NASA-CASE-GSC-11074-1		US-PATENT-CLASS-250-229
	US-PATENT-APPL-SN-198362		US-PATENT-CLASS-250-237R
	US-PATENT-CLASS-34-155		US-PATENT-CLASS-250-239
	US-PATENT-CLASS-34-160		US-PATENT-3,745,352
	US-PATENT-CLASS-34-162	c09 N73-30181	NASA-CASE-MFS-21214-1
	US-PATENT-3,744,148		US-PATENT-APPL-SN-235269
c14 N73-28490	NASA-CASE-GSC-11444-1		US-PATENT-CLASS-313-161
	US-PATENT-APPL-SN-229128		US-PATENT-CLASS-315-248
	US-PATENT-CLASS-250-203R		US-PATENT-CLASS-315-324
	US-PATENT-CLASS-250-209		US-PATENT-3,745,410
	US-PATENT-CLASS-250-214R	c09 N73-30185	NASA-CASE-NPO-11738-1
	US-PATENT-CLASS-356-141		US-PATENT-APPL-SN-235295
	US-PATENT-3,744,913		US-PATENT-CLASS-335-296
c14 N73-28491	NASA-CASE-XNP-05231		US-PATENT-CLASS-335-297
	US-PATENT-APPL-SN-524746		US-PATENT-3,750,067
	US-PATENT-CLASS-250-51.5	c10 N73-30205	NASA-CASE-NPO-11307-1
	US-PATENT-3,440,419		US-PATENT-APPL-SN-169671
c14 N73-28499	NASA-CASE-GSC-11690-1		US-PATENT-CLASS-340-277
	US-PATENT-APPL-SN-379290		US-PATENT-CLASS-340-279
c15 N73-28515	NASA-CASE-LEW-10533-1		US-PATENT-3,750,131
	US-PATENT-APPL-SN-134658	c14 N73-30386	NASA-CASE-MFS-20658-1
	US-PATENT-CLASS-27-498		US-PATENT-APPL-SN-205675
	US-PATENT-CLASS-29-497.5		US-PATENT-CLASS-324-79D
	US-PATENT-CLASS-219-62		US-PATENT-CLASS-328-48
	US-PATENT-CLASS-219-107		US-PATENT-CLASS-328-129
	US-PATENT-3,745,300		US-PATENT-CLASS-328-134
c15 N73-28516	NASA-CASE-XNP-01187		US-PATENT-3,745,475
	US-PATENT-APPL-SN-155598	c14 N73-30388	NASA-CASE-NPO-11291-1
	US-PATENT-CLASS-317-158		US-PATENT-APPL-SN-116790
	US-PATENT-3,244,943		US-PATENT-CLASS-328-29.5
c17 N73-28573	NASA-CASE-XNP-08876		US-PATENT-CLASS-324-57R
	US-PATENT-APPL-SN-527331		US-PATENT-CLASS-324-62R
	US-PATENT-CLASS-75-66		US-PATENT-CLASS-324-95
	US-PATENT-3,419,384		US-PATENT-3,750,016
c26 N73-28710	NASA-CASE-XNP-01185	c14 N73-30389	NASA-CASE-MFS-20546-2
	US-PATENT-APPL-SN-155595		US-PATENT-APPL-SN-11220
	US-PATENT-CLASS-317-158		US-PATENT-APPL-SN-51317
	US-PATENT-3,198,994		US-PATENT-CLASS-250-65R
c05 N73-30078	NASA-CASE-MFS-21010-1		US-PATENT-CLASS-250-105
	US-PATENT-APPL-SN-251609		US-PATENT-3,749,911
	US-PATENT-CLASS-73-379	c14 N73-30390	NASA-CASE-XGS-07752
	US-PATENT-3,750,479		US-PATENT-APPL-SN-533659
c06 N73-30097	NASA-CASE-LAR-10670-1		US-PATENT-CLASS-73-4
	US-PATENT-APPL-SN-59892		US-PATENT-3,395,565
	US-PATENT-CLASS-60-215	c14 N73-30391	NASA-CASE-XLA-05087
	US-PATENT-CLASS-149-1		US-PATENT-APPL-SN-459407
	US-PATENT-CLASS-149-36		US-PATENT-CLASS-315-111
	US-PATENT-CLASS-252-301.4		US-PATENT-3,394,286
	US-PATENT-CLASS-252-305	c14 N73-30392	NASA-CASE-MFS-21441-1
	US-PATENT-3,751,913		US-PATENT-APPL-SN-231662
c06 N73-30098	NASA-CASE-MFS-21040-1		US-PATENT-CLASS-250-394
	US-PATENT-APPL-SN-183240		US-PATENT-CLASS-250-518
	US-PATENT-CLASS-260-485F		US-PATENT-3,752,986
	US-PATENT-3,752,847	c14 N73-30393	NASA-CASE-GSC-11487-1
c06 N73-30099	NASA-CASE-MFS-10512		US-PATENT-APPL-SN-193814
	US-PATENT-APPL-SN-606027		US-PATENT-CLASS-250-203
	US-PATENT-CLASS-260-77.5		US-PATENT-CLASS-350-55
	US-PATENT-3,463,761		US-PATENT-CLASS-350-199
c06 N73-30100	NASA-CASE-MFS-10506		US-PATENT-CLASS-350-204
	US-PATENT-APPL-SN-606036		US-PATENT-3,752,559
	US-PATENT-CLASS-260-77.5	c14 N73-30394	NASA-CASE-LAR-10000
	US-PATENT-3,463,762		US-PATENT-APPL-SN-613235
c06 N73-30101	NASA-CASE-MFS-10507		US-PATENT-CLASS-73-398
	US-PATENT-APPL-SN-605994		US-PATENT-3,446,075
	US-PATENT-CLASS-260-615	c14 N73-30395	NASA-CASE-LAR-10623-1
	US-PATENT-3,452,103		US-PATENT-APPL-SN-214086

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-15-415		US-PATENT-CLASS-3-1.1
	US-PATENT-CLASS-73-28		US-PATENT-CLASS-3-2
	US-PATENT-CLASS-73-421.5R		US-PATENT-CLASS-3-6
	US-PATENT-3,748,905		US-PATENT-CLASS-3-12
c15 N73-30457	NASA-CASE-GSC-11149-1		US-PATENT-3,751,733
	US-PATENT-APPL-SN-152849	c05 N73-32014	NASA-CASE-HSC-11561-1
	US-PATENT-CLASS-29-452		US-PATENT-APPL-SN-146940
	US-PATENT-CLASS-81-57.38		US-PATENT-CLASS-91-186
	US-PATENT-CLASS-254-29A		US-PATENT-CLASS-137-535
	US-PATENT-3,749,362		US-PATENT-CLASS-272-DIG.1
c15 N73-30458	NASA-CASE-LEW-11087-1		US-PATENT-CLASS-272-DIG.4
	US-PATENT-APPL-SN-201904		US-PATENT-CLASS-272-DIG.5
	US-PATENT-CLASS-308-188		US-PATENT-CLASS-272-79C
	US-PATENT-CLASS-308-193		US-PATENT-3,758,112
	US-PATENT-3,751,123	c05 N73-32015	NASA-CASE-HSC-13436-1
c15 N73-30459	NASA-CASE-HSC-13587-1		US-PATENT-APPL-SN-173190
	US-PATENT-APPL-SN-206698		US-PATENT-CLASS-73-194E
	US-PATENT-CLASS-137-516.27		US-PATENT-CLASS-73-194H
	US-PATENT-CLASS-137-535		US-PATENT-CLASS-128-2.07
	US-PATENT-3,749,123		US-PATENT-CLASS-128-2.08
c15 N73-30460	NASA-CASE-HQN-10638-1		US-PATENT-3,759,249
	US-PATENT-APPL-SN-212977	c06 N73-32029	NASA-CASE-HPO-10998-1
	US-PATENT-CLASS-188-1C		NASA-CASE-HPO-10999-1
	US-PATENT-CLASS-297-386		US-PATENT-APPL-SN-145027
	US-PATENT-3,749,205		US-PATENT-CLASS-252-431H
c16 N73-30476	NASA-CASE-HFS-20823-1		US-PATENT-CLASS-252-431H
	US-PATENT-APPL-SN-175981		US-PATENT-CLASS-260-470P
	US-PATENT-CLASS-350-3.5		US-PATENT-CLASS-260-93.5A
	US-PATENT-CLASS-356-108		US-PATENT-CLASS-260-93.55
	US-PATENT-CLASS-356-109		US-PATENT-CLASS-260-94.2M
	US-PATENT-3,744,912		US-PATENT-CLASS-260-94.2R
c18 N73-30532	NASA-CASE-ERC-10339-1		US-PATENT-CLASS-260-94.7R
	US-PATENT-APPL-SN-43883		US-PATENT-CLASS-260-567.6H
	US-PATENT-CLASS-156-285		US-PATENT-3,755,283
	US-PATENT-3,745,082	c06 N73-32030	NASA-CASE-HFS-20979-2
c21 N73-30640	NASA-CASE-GSC-10890-1		US-PATENT-APPL-SN-100774
	US-PATENT-APPL-SN-111998		US-PATENT-APPL-SN-219590
	US-PATENT-CLASS-244-1SA		US-PATENT-CLASS-260-448.2D
	US-PATENT-CLASS-250-203R		US-PATENT-3,763,204
	US-PATENT-CLASS-250-209	c08 N73-32081	NASA-CASE-HSC-12458-1
	US-PATENT-CLASS-250-236		US-PATENT-APPL-SN-188927
	US-PATENT-3,752,993		US-PATENT-CLASS-235-1521E
c21 N73-30641	NASA-CASE-LAR-10717-1		US-PATENT-CLASS-340-347DA
	US-PATENT-APPL-SN-242028		US-PATENT-3,754,236
	US-PATENT-CLASS-343-6.5R	c09 N73-32107	NASA-CASE-HFS-20207-1
	US-PATENT-CLASS-343-112CA		US-PATENT-APPL-SN-239574
	US-PATENT-3,750,168		US-PATENT-CLASS-318-254
c23 N73-30665	NASA-CASE-LEW-11326-1		US-PATENT-CLASS-318-328
	US-PATENT-APPL-SN-192970		US-PATENT-3,757,183
	US-PATENT-CLASS-60-39.65	c09 N73-32108	NASA-CASE-GSC-11368-1
	US-PATENT-CLASS-60-39.66		US-PATENT-APPL-SN-237029
	US-PATENT-CLASS-60-39.72		US-PATENT-CLASS-136-24
	US-PATENT-CLASS-60-39.74R		US-PATENT-3,759,746
	US-PATENT-CLASS-431-9	c09 N73-32109	NASA-CASE-GSC-11394-1
	US-PATENT-CLASS-431-173		US-PATENT-APPL-SN-292698
	US-PATENT-3,748,853		US-PATENT-CLASS-136-89
c23 N73-30666	NASA-CASE-GSC-11296-1		US-PATENT-CLASS-250-212
	US-PATENT-APPL-SN-228190		US-PATENT-CLASS-321-1.5
	US-PATENT-CLASS-350-55		US-PATENT-3,760,257
	US-PATENT-CLASS-350-162SF	c09 N73-32110	NASA-CASE-KSC-10729-1
	US-PATENT-3,752,564		US-PATENT-APPL-SN-221714
c31 N73-30829	NASA-CASE-GSC-11018-1		US-PATENT-CLASS-343-112R
	US-PATENT-APPL-SN-244523		US-PATENT-CLASS-343-113R
	US-PATENT-CLASS-165-32		US-PATENT-3,754,263
	US-PATENT-CLASS-165-47	c09 N73-32111	NASA-CASE-ARC-10463-1
	US-PATENT-CLASS-165-96		US-PATENT-APPL-SN-241615
	US-PATENT-CLASS-165-105		US-PATENT-CLASS-331-94.5
	US-PATENT-CLASS-244-1SS		US-PATENT-3,753,148
	US-PATENT-3,749,156	c09 N73-32112	NASA-CASE-ARC-10330-1
c03 N73-31988	NASA-CASE-HSC-12396-1		US-PATENT-APPL-SN-151412
	US-PATENT-APPL-SN-258331		US-PATENT-CLASS-317-235R
	US-PATENT-CLASS-307-18		US-PATENT-CLASS-317-235WW
	US-PATENT-CLASS-307-28		US-PATENT-3,760,239
	US-PATENT-CLASS-307-29	c10 N73-32143	NASA-CASE-HSC-13746-1
	US-PATENT-CLASS-307-38		US-PATENT-APPL-SN-226476
	US-PATENT-3,755,686		US-PATENT-CLASS-178-18
c05 N73-32011	NASA-CASE-GSC-11169-2		US-PATENT-3,758,718
	US-PATENT-APPL-SN-60882	c10 N73-32144	NASA-CASE-NPO-11703-1
	US-PATENT-APPL-SN-139094		US-PATENT-APPL-SN-223560
	US-PATENT-CLASS-195-127		US-PATENT-CLASS-340-166
	US-PATENT-3,756,920		US-PATENT-CLASS-340-173
c05 N73-32012	NASA-CASE-HSC-12609-1		US-PATENT-CLASS-340-223
	US-PATENT-APPL-SN-750031		US-PATENT-CLASS-340-415
	US-PATENT-CLASS-2-2.1A		US-PATENT-3,760,394
	US-PATENT-CLASS-2-81	c10 N73-32145	NASA-CASE-HFS-21465-1
	US-PATENT-CLASS-128-1A		US-PATENT-APPL-SN-218965
	US-PATENT-3,751,727		US-PATENT-CLASS-307-271
c05 N73-32013	NASA-CASE-HFS-16570-1		US-PATENT-CLASS-318-230
	US-PATENT-APPL-SN-228150		US-PATENT-CLASS-318-231

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-318-341	c15 N73-32362	NASA-CASE-XNP-07169
	US-PATENT-CLASS-331-135		US-PATENT-APPL-SN-486884
	US-PATENT-3,760,248		US-PATENT-CLASS-175-26
c11 N73-32152	NASA-CASE-MSC-13789-1		US-PATENT-3,375,885
	US-PATENT-APPL-SN-166487	c16 N73-32391	NASA-CASE-GSC-11222-1
	US-PATENT-CLASS-89-8		US-PATENT-APPL-SN-251621
	US-PATENT-CLASS-102-95		US-PATENT-CLASS-307-157
	US-PATENT-CLASS-188-1C		US-PATENT-CLASS-315-DIG.2
	US-PATENT-3,763,740		US-PATENT-CLASS-315-101
c14 N73-32317	NASA-CASE-NPO-12128-1		US-PATENT-CLASS-315-258
	US-PATENT-APPL-SN-841845		US-PATENT-CLASS-315-356
	US-PATENT-CLASS-250-83.3R		US-PATENT-CLASS-330-4.3
	US-PATENT-CLASS-250-207		US-PATENT-CLASS-331-94.5
	US-PATENT-CLASS-313-104		US-PATENT-3,758,877
	US-PATENT-3,758,781	c17 N73-32414	NASA-CASE-LEW-11267-1
c14 N73-32318	NASA-CASE-KSC-10730-1		US-PATENT-APPL-SN-190316
	US-PATENT-APPL-SN-248469		US-PATENT-CLASS-29-196.2
	US-PATENT-CLASS-324-72		US-PATENT-CLASS-29-196.6
	US-PATENT-3,760,268		US-PATENT-CLASS-29-197
c14 N73-32319	NASA-CASE-KSC-10728-1		US-PATENT-3,762,884
	US-PATENT-APPL-SN-292682	c17 N73-32415	NASA-CASE-LEW-10436-1
	US-PATENT-CLASS-95-11		US-PATENT-APPL-SN-221093
	US-PATENT-CLASS-95-11.5		US-PATENT-CLASS-73-170
	US-PATENT-3,759,152		US-PATENT-CLASS-75-171
c14 N73-32320	NASA-CASE-GSC-11188-1		US-PATENT-3,762,918
	US-PATENT-APPL-SN-80029	c18 N73-32437	NASA-CASE-NFS-20861-1
	US-PATENT-APPL-SN-244440		US-PATENT-APPL-SN-160860
	US-PATENT-CLASS-29-195Y		US-PATENT-CLASS-75-135
	US-PATENT-3,759,672		US-PATENT-3,752,665
c14 N73-32321	NASA-CASE-XNP-05530	c22 N73-32528	NASA-CASE-XLE-00209
	NASA-CASE-XNP-06933		US-PATENT-APPL-SN-60276
	US-PATENT-APPL-SN-488381		US-PATENT-CLASS-176-169
	US-PATENT-CLASS-73-81		US-PATENT-3,759,787
	US-PATENT-3,379,052	c26 N73-32571	NASA-CASE-LEW-11015
c14 N73-32322	NASA-CASE-LAR-10319-1		US-PATENT-APPL-SN-235266
	US-PATENT-APPL-SN-197870		US-PATENT-CLASS-29-599
	US-PATENT-CLASS-95-42		US-PATENT-CLASS-174-DIG.6
	US-PATENT-CLASS-346-110		US-PATENT-CLASS-174-126CP
	US-PATENT-3,757,659		US-PATENT-CLASS-335-216
c14 N73-32323	NASA-CASE-LAR-10440-1		US-PATENT-3,763,552
	US-PATENT-APPL-SN-229413	c28 N73-32606	NASA-CASE-NPO-12070-1
	US-PATENT-CLASS-73-94		US-PATENT-APPL-SN-153542
	US-PATENT-CLASS-73-103		US-PATENT-CLASS-60-267
	US-PATENT-3,757,568		US-PATENT-CLASS-165-105
c14 N73-32324	NASA-CASE-LAR-02743		US-PATENT-CLASS-165-141
	US-PATENT-APPL-SN-404212		US-PATENT-CLASS-165-185
	US-PATENT-CLASS-313-7		US-PATENT-CLASS-239-127.1
	US-PATENT-3,310,699		US-PATENT-3,759,493
c14 N73-32325	NASA-CASE-XNP-04231	c31 N73-32749	NASA-CASE-ERC-10365-1
	US-PATENT-APPL-SN-362261		US-PATENT-APPL-SN-99198
	US-PATENT-CLASS-250-41.9		US-PATENT-CLASS-52-64
	US-PATENT-3,334,225		US-PATENT-CLASS-52-80
c14 N73-32326	NASA-CASE-ABC-10362-1		US-PATENT-CLASS-52-109
	US-PATENT-APPL-SN-198289		US-PATENT-CLASS-52-646
	US-PATENT-CLASS-73-194EM		US-PATENT-CLASS-287-92
	US-PATENT-CLASS-128-2.05F		US-PATENT-3,757,476
	US-PATENT-3,751,980	c31 N73-32750	NASA-CASE-LEW-11101-1
c14 N73-32327	NASA-CASE-LAR-10483-1		US-PATENT-APPL-SN-175983
	US-PATENT-APPL-SN-184090		US-PATENT-CLASS-47-1.4
	US-PATENT-CLASS-73-12		US-PATENT-CLASS-47-17
	US-PATENT-CLASS-73-170R		US-PATENT-CLASS-244-1SC
	US-PATENT-3,763,691		US-PATENT-CLASS-244-1SS
c15 N73-32358	NASA-CASE-LEW-11388-1		US-PATENT-3,749,332
	US-PATENT-APPL-SN-289033	c33 N73-32818	NASA-CASE-NPO-11942-1
	US-PATENT-CLASS-29-497		US-PATENT-APPL-SN-266866
	US-PATENT-CLASS-219-91		US-PATENT-CLASS-165-32
	US-PATENT-CLASS-219-117		US-PATENT-CLASS-165-96
	US-PATENT-3,758,741		US-PATENT-CLASS-165-106
c15 N73-32359	NASA-CASE-LEW-11152-1		US-PATENT-CLASS-244-1SS
	US-PATENT-APPL-SN-198379		US-PATENT-3,763,928
	US-PATENT-CLASS-308-9	c06 N73-33076	NASA-CASE-NPO-10767-1
	US-PATENT-CLASS-308-35		US-PATENT-APPL-SN-241061
	US-PATENT-3,759,588		US-PATENT-APPL-SN-770417
c15 N73-32360	NASA-CASE-GSC-11163-1		US-PATENT-CLASS-260-77.5AP
	US-PATENT-APPL-SN-205047		US-PATENT-3,755,265
	US-PATENT-CLASS-29-527.2	c14 N73-33361	NASA-CASE-ABC-10468-1
	US-PATENT-CLASS-72-53		US-PATENT-APPL-SN-288857
	US-PATENT-CLASS-117-66		US-PATENT-CLASS-95-12
	US-PATENT-CLASS-117-105		US-PATENT-CLASS-355-18
	US-PATENT-CLASS-117-105.5		US-PATENT-3,764,209
	US-PATENT-CLASS-117-130R	c15 N73-33383	NASA-CASE-LEW-11026-1
	US-PATENT-CLASS-117-138.8R		US-PATENT-APPL-SN-196970
	US-PATENT-CLASS-117-151		US-PATENT-CLASS-29-487
	US-PATENT-CLASS-117-160R		US-PATENT-CLASS-29-494
	US-PATENT-3,754,976		US-PATENT-CLASS-29-497.5
c15 N73-32361	NASA-CASE-XNP-01188		US-PATENT-CLASS-29-498
	US-PATENT-APPL-SN-155596		US-PATENT-3,748,722
	US-PATENT-CLASS-317-158	c16 N73-33397	NASA-CASE-ABC-10444-1
	US-PATENT-3,262,025		US-PATENT-APPL-SN-167719

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-331-94.5A		US-PATENT-CLASS-137-840
	US-PATENT-CLASS-350-285		US-PATENT-3,770,021
	US-PATENT-CLASS-356-138	c35 N74-11283	NASA-CASE-NPO-11659-1
	US-PATENT-CLASS-356-148		US-PATENT-APPL-SN-228189
	US-PATENT-CLASS-356-153		US-PATENT-CLASS-178-6.6DD
	US-PATENT-CLASS-356-172		US-PATENT-CLASS-179-100.2MD
	US-PATENT-3,764,220		US-PATENT-CLASS-179-100.2T
c02 N74-10034	NASA-CASE-LAR-10776-1		US-PATENT-CLASS-340-174.1L
	US-PATENT-APPL-SN-211332		US-PATENT-3,770,903
	US-PATENT-CLASS-244-145	c35 N74-11284	NASA-CASE-NPO-11919-1
	US-PATENT-3,764,097		US-PATENT-APPL-SN-237694
c32 N74-10132	NASA-CASE-NPO-11302-2		US-PATENT-CLASS-250-343
	US-PATENT-APPL-SN-70967		US-PATENT-3,766,380
	US-PATENT-APPL-SN-266822	c37 N74-11300	NASA-CASE-LEW-10533-2
	US-PATENT-CLASS-178-69.4R		US-PATENT-APPL-SN-247055
	US-PATENT-3,766,315		US-PATENT-CLASS-29-497.5
c33 N74-10194	NASA-CASE-NPO-11962-1		US-PATENT-CLASS-219-78
	US-PATENT-APPL-SN-292681		US-PATENT-CLASS-219-101
	US-PATENT-CLASS-331-1A		US-PATENT-CLASS-219-107
	US-PATENT-CLASS-331-4		US-PATENT-3,770,933
	US-PATENT-CLASS-331-14	c37 N74-11301	NASA-CASE-LAR-10170-1
	US-PATENT-CLASS-331-17		US-PATENT-APPL-SN-217213
	US-PATENT-CLASS-331-18		US-PATENT-CLASS-29-460
	US-PATENT-CLASS-331-178		US-PATENT-CLASS-29-498
	US-PATENT-3,764,933		US-PATENT-CLASS-29-503
c33 N74-10195	NASA-CASE-LEW-11617-1		US-PATENT-CLASS-29-527.2
	US-PATENT-APPL-SN-266832		US-PATENT-CLASS-117-105.2
	US-PATENT-CLASS-315-5.35		US-PATENT-3,769,689
	US-PATENT-CLASS-315-5.38	c36 N74-11313	NASA-CASE-HQN-10790-1
	US-PATENT-3,764,850		US-PATENT-APPL-SN-235962
c33 N74-10223	NASA-CASE-LAR-10730-1		US-PATENT-CLASS-333-83R
	US-PATENT-APPL-SN-239573		US-PATENT-CLASS-333-97R
	US-PATENT-CLASS-235-92CA		US-PATENT-3,771,074
	US-PATENT-CLASS-235-92DM	c52 N74-12778	NASA-CASE-HFS-20284-1
	US-PATENT-CLASS-235-150.3		US-PATENT-APPL-SN-242027
	US-PATENT-CLASS-307-225R		US-PATENT-CLASS-128-2.05T
	US-PATENT-CLASS-328-48		US-PATENT-CLASS-128-2.06F
	US-PATENT-3,764,790		US-PATENT-CLASS-324-78D
c35 N74-10415	NASA-CASE-HFS-20335-1		US-PATENT-CLASS-324-186
	US-PATENT-APPL-SN-238263		US-PATENT-3,773,038
	US-PATENT-CLASS-73-67.8S	c54 N74-12779	NASA-CASE-HFS-21115-1
	US-PATENT-3,765,229		US-PATENT-APPL-SN-266930
c37 N74-10474	NASA-CASE-LEW-10326-3		US-PATENT-CLASS-222-309
	US-PATENT-APPL-SN-99901		US-PATENT-CLASS-222-340
	US-PATENT-CLASS-277-25		US-PATENT-CLASS-222-387
	US-PATENT-CLASS-277-27		US-PATENT-CLASS-222-514
	US-PATENT-CLASS-277-96		US-PATENT-3,777,942
	US-PATENT-3,767,212	c27 N74-12812	NASA-CASE-ARC-10464-1
c26 N74-10521	NASA-CASE-LEW-10805-3		US-PATENT-APPL-SN-198472
	US-PATENT-APPL-SN-29917		US-PATENT-CLASS-260-2.5AM
	US-PATENT-APPL-SN-266928		US-PATENT-3,772,216
	US-PATENT-CLASS-29-420.5	c25 N74-12813	NASA-CASE-LAR-10551-1
	US-PATENT-CLASS-75-200		US-PATENT-APPL-SN-191301
	US-PATENT-CLASS-75-226		US-PATENT-CLASS-23-252R
	US-PATENT-CLASS-148-126		US-PATENT-CLASS-23-281
	US-PATENT-3,765,958		US-PATENT-CLASS-23-288F
c05 N74-10907	NASA-CASE-XMF-02263		US-PATENT-CLASS-23-288J
	US-PATENT-APPL-SN-78766		US-PATENT-CLASS-55-510
	US-PATENT-CLASS-D71-1		US-PATENT-CLASS-55-518
	US-PATENT-DES-228,688		US-PATENT-CLASS-128-191R
c08 N74-10942	NASA-CASE-MSC-12394-1		US-PATENT-CLASS-423-231
	US-PATENT-APPL-SN-341662		US-PATENT-3,771,959
	US-PATENT-CLASS-244-83	c27 N74-12814	NASA-CASE-ARC-10180-1
	US-PATENT-CLASS-318-580		US-PATENT-APPL-SN-136253
	US-PATENT-CLASS-318-628		US-PATENT-CLASS-260-2.5L
	US-PATENT-3,771,037		US-PATENT-3,772,220
c52 N74-10975	NASA-CASE-MSC-13972-1	c32 N74-12843	NASA-CASE-LAR-11170-1
	US-PATENT-APPL-SN-200040		US-PATENT-APPL-SN-418010
	US-PATENT-CLASS-73-149	c33 N74-12887	NASA-CASE-NPO-11905-1
	US-PATENT-CLASS-128-25		US-PATENT-APPL-SN-290030
	US-PATENT-3,769,834		US-PATENT-CLASS-178-88
c32 N74-11000	NASA-CASE-NPO-13171-1		US-PATENT-CLASS-325-320
	US-PATENT-APPL-SN-290915		US-PATENT-CLASS-329-104
	US-PATENT-CLASS-343-781		US-PATENT-CLASS-329-122
	US-PATENT-CLASS-343-909		US-PATENT-CLASS-329-126
	US-PATENT-3,769,623		US-PATENT-3,772,272
c33 N74-11049	NASA-CASE-HQN-10792-1	c60 N74-12888	NASA-CASE-MSC-14053-1
	US-PATENT-APPL-SN-245063		US-PATENT-APPL-SN-266899
	US-PATENT-CLASS-321-2		US-PATENT-CLASS-328-123
	US-PATENT-CLASS-321-18		US-PATENT-CLASS-340-173CR
	US-PATENT-CLASS-321-45S		US-PATENT-CLASS-340-173LM
	US-PATENT-CLASS-323-DTG.1		US-PATENT-3,778,786
	US-PATENT-CLASS-331-62	c32 N74-12912	NASA-CASE-NPO-11850-1
	US-PATENT-CLASS-331-113A		US-PATENT-APPL-SN-186700
	US-PATENT-3,771,040		US-PATENT-CLASS-343-6.5R
c33 N74-11050	NASA-CASE-LAR-10868-1		US-PATENT-CLASS-343-6.5SS
	US-PATENT-APPL-SN-253249		US-PATENT-CLASS-343-18B
	US-PATENT-CLASS-137-819		US-PATENT-3,772,691
	US-PATENT-CLASS-137-833	c33 N74-12913	NASA-CASE-LEW-11162-1

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-143508		US-PATENT-APPL-SN-233519
	US-PATENT-CLASS-313-32		US-PATENT-CLASS-60-258
	US-PATENT-CLASS-313-153		US-PATENT-CLASS-60-259
	US-PATENT-CLASS-313-209		US-PATENT-3, 777, 490
	US-PATENT-CLASS-313-217		NASA-CASE-LAR-10782-1
	US-PATENT-CLASS-313-224	c31 N74-14133	US-PATENT-APPL-SN-197689
	US-PATENT-3, 777, 200		US-PATENT-CLASS-264-102
c33 N74-12951	NASA-CASE-HFS-21374-1		US-PATENT-3, 780, 151
	US-PATENT-APPL-SN-238047	c44 N74-14784	NASA-CASE-LEW-11069-1
	US-PATENT-CLASS-317-234E		US-PATENT-APPL-SN-83816
	US-PATENT-CLASS-317-234F		US-PATENT-CLASS-29-572
	US-PATENT-CLASS-317-234H		US-PATENT-CLASS-29-588
	US-PATENT-CLASS-317-234N		US-PATENT-CLASS-136-89
	US-PATENT-CLASS-317-234R		US-PATENT-3, 780, 424
	US-PATENT-3, 778, 685	c54 N74-14845	NASA-CASE-LAR-10241-1
c46 N74-13011	NASA-CASE-HSC-12408-1		US-PATENT-APPL-SN-193672
	US-PATENT-APPL-SN-229916		US-PATENT-CLASS-9-11A
	US-PATENT-CLASS-423-579		US-PATENT-3, 781, 933
	US-PATENT-3, 773, 913	c62 N74-14920	NASA-CASE-MSC-13932-1
c35 N74-13129	NASA-CASE-FRC-10051-1		US-PATENT-APPL-SN-229354
	US-PATENT-APPL-SN-253725		US-PATENT-CLASS-235-153AK
	US-PATENT-CLASS-73-88R		US-PATENT-3, 783, 250
	US-PATENT-CLASS-254-93R	c33 N74-14935	NASA-CASE-HFS-21462-1
	US-PATENT-3, 776, 028		US-PATENT-APPL-SN-239576
c91 N74-13130	NASA-CASE-NPO-12127-1		US-PATENT-CLASS-219-477
	US-PATENT-APPL-SN-106106		US-PATENT-CLASS-219-539
	US-PATENT-CLASS-250-83CD		US-PATENT-CLASS-338-320
	US-PATENT-CLASS-250-219DP		US-PATENT-3, 732, 397
	US-PATENT-3, 752, 996	c33 N74-14939	NASA-CASE-FRC-10072-1
c39 N74-13131	NASA-CASE-HFS-20730-1		US-PATENT-APPL-SN-162100
	US-PATENT-APPL-SN-182977		US-PATENT-CLASS-330-9
	US-PATENT-CLASS-83-452		US-PATENT-CLASS-330-10
	US-PATENT-CLASS-83-602		US-PATENT-CLASS-330-35
	US-PATENT-CLASS-83-917		US-PATENT-3, 783, 399
	US-PATENT-CLASS-269-48.1	c33 N74-14956	NASA-CASE-MSC-17832-1
	US-PATENT-3, 777, 605		US-PATENT-APPL-SN-293727
c35 N74-13132	NASA-CASE-LAR-10910-1		US-PATENT-CLASS-307-127
	US-PATENT-APPL-SN-239577		US-PATENT-CLASS-317-33SC
	US-PATENT-CLASS-73-4R		US-PATENT-CLASS-317-43
	US-PATENT-CLASS-73-420		US-PATENT-CLASS-317-46
	US-PATENT-3, 777, 546		US-PATENT-CLASS-317-47
c31 N74-13177	NASA-CASE-LAR-10547-1		US-PATENT-CLASS-317-48
	US-PATENT-APPL-SN-193980		US-PATENT-3, 783, 354
	US-PATENT-CLASS-264-294	c19 N74-15089	NASA-CASE-LAR-10586-1
	US-PATENT-3, 772, 418		US-PATENT-APPL-SN-289049
c37 N74-13178	NASA-CASE-LAR-10544-1		US-PATENT-CLASS-102-70.2R
	US-PATENT-APPL-SN-188928		US-PATENT-CLASS-244-15A
	US-PATENT-CLASS-222-193		US-PATENT-CLASS-244-3.16
	US-PATENT-3, 776, 432		US-PATENT-CLASS-250-203R
c37 N74-13179	NASA-CASE-LEW-10805-2		US-PATENT-CLASS-250-237R
	US-PATENT-APPL-SN-29917		US-PATENT-3, 780, 966
	US-PATENT-APPL-SN-233743	c35 N74-15090	NASA-CASE-NPO-11432-2
	US-PATENT-CLASS-29-182		US-PATENT-APPL-SN-88435
	US-PATENT-CLASS-29-420.5		US-PATENT-APPL-SN-258152
	US-PATENT-CLASS-75-200		US-PATENT-CLASS-250-211J
	US-PATENT-CLASS-75-213		US-PATENT-CLASS-250-214
	US-PATENT-CLASS-75-214		US-PATENT-CLASS-317-235N
	US-PATENT-CLASS-75-226		US-PATENT-3, 781, 549
	US-PATENT-3, 775, 101	c35 N74-15091	NASA-CASE-LAR-11155-1
c36 N74-13205	NASA-CASE-NPO-11317-2		US-PATENT-APPL-SN-313381
	US-PATENT-APPL-SN-34989		US-PATENT-CLASS-250-360
	US-PATENT-APPL-SN-187143		US-PATENT-CLASS-250-361
	US-PATENT-CLASS-179-100.2CH		US-PATENT-CLASS-250-369
	US-PATENT-CLASS-250-205		US-PATENT-CLASS-250-492
	US-PATENT-CLASS-250-217		US-PATENT-3, 781, 562
	US-PATENT-CLASS-340-174.1H	c35 N74-15092	NASA-CASE-LAR-10862-1
	US-PATENT-CLASS-340-174YC		US-PATENT-APPL-SN-271951
	US-PATENT-CLASS-350-151		US-PATENT-CLASS-73-4V
	US-PATENT-3, 778, 791		US-PATENT-3, 780, 563
c27 N74-13270	NASA-CASE-LEW-11262-1	c35 N74-15093	NASA-CASE-ARC-10442-1
	US-PATENT-APPL-SN-136008		US-PATENT-APPL-SN-280032
	US-PATENT-CLASS-204-192		US-PATENT-CLASS-62-45
	US-PATENT-3, 772, 174		US-PATENT-CLASS-165-2
c04 N74-13420	NASA-CASE-FRC-10049-1		US-PATENT-CLASS-165-109
	US-PATENT-APPL-SN-232021		US-PATENT-CLASS-259-DIG.18
	US-PATENT-CLASS-235.150.27		US-PATENT-CLASS-259-60
	US-PATENT-CLASS-235-150.22		US-PATENT-3, 782, 698
	US-PATENT-CLASS-235-150.26	c35 N74-15094	NASA-CASE-NPO-13044-1
	US-PATENT-CLASS-244-77A		US-PATENT-APPL-SN-305012
	US-PATENT-CLASS-244-77B		US-PATENT-CLASS-73-497
	US-PATENT-CLASS-343-108R		US-PATENT-CLASS-73-517B
	US-PATENT-3, 776, 455		US-PATENT-CLASS-74-5.6
c70 N74-13436	NASA-CASE-LAR-10385-2		US-PATENT-3, 782, 205
	US-PATENT-APPL-SN-38816	c74 N74-15095	NASA-CASE-MSC-14096-1
	US-PATENT-APPL-SN-239803		US-PATENT-APPL-SN-242662
	US-PATENT-CLASS-117-33.3		US-PATENT-CLASS-350-7
	US-PATENT-CLASS-117-106A		US-PATENT-CLASS-350-236
	US-PATENT-3, 779, 788		US-PATENT-CLASS-350-285
c20 N74-13502	NASA-CASE-LEW-11058-1		US-PATENT-CLASS-356-43

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-356-216	c27 N74-17283	NASA-CASE-NFS-20486-2
	US-PATENT-3,782,835		US-PATENT-APPL-SN-84212
c37 N74-15125	NASA-CASE-XLE-10326-4		US-PATENT-APPL-SN-292382
	US-PATENT-APPL-SN-54540		US-PATENT-CLASS-260-29.6S
	US-PATENT-APPL-SN-220251		US-PATENT-3,784,499
	US-PATENT-APPL-SN-723465	c54 N74-17853	NASA-CASE-NFS-21163-1
	US-PATENT-CLASS-277-27		US-PATENT-APPL-SN-266925
	US-PATENT-CLASS-277-91		US-PATENT-CLASS-222-324
	US-PATENT-3,782,737		US-PATENT-CLASS-224-444
c35 N74-15126	NASA-CASE-ARC-10441-1		US-PATENT-3,790,037
	US-PATENT-APPL-SN-280029	c35 N74-17885	NASA-CASE-HSC-13855-1
	US-PATENT-CLASS-259-98		US-PATENT-APPL-SN-196931
	US-PATENT-CLASS-417-470		US-PATENT-CLASS-325-38B
	US-PATENT-CLASS-417-471		US-PATENT-CLASS-332-11D
	US-PATENT-3,782,699		US-PATENT-CLASS-340-347AD
c35 N74-15127	NASA-CASE-NPO-11682-1		US-PATENT-3,795,900
	US-PATENT-APPL-SN-187365	c33 N74-17927	NASA-CASE-NPO-13138-1
	US-PATENT-CLASS-23-284		US-PATENT-APPL-SN-335201
	US-PATENT-3,782,904		US-PATENT-CLASS-328-155
c37 N74-15128	NASA-CASE-LEW-11087-2		US-PATENT-CLASS-333-16
	US-PATENT-APPL-SN-201904		US-PATENT-CLASS-333-18
	US-PATENT-APPL-SN-280390		US-PATENT-3,790,906
	US-PATENT-CLASS-29-148.4A	c33 N74-17928	NASA-CASE-NPO-11966-1
	US-PATENT-CLASS-29-148.4B		NASA-CASE-NPO-13159-1
	US-PATENT-3,781,958		US-PATENT-APPL-SN-284245
c38 N74-15130	NASA-CASE-NFS-20767-1		US-PATENT-CLASS-100-8
	US-PATENT-APPL-SN-196898		US-PATENT-CLASS-336-210
	US-PATENT-CLASS-73-67.8S		US-PATENT-3,792,399
	US-PATENT-3,777,552	c33 N74-17929	NASA-CASE-ARC-10197-1
c36 N74-15145	NASA-CASE-NPO-11856-1		US-PATENT-APPL-SN-310624
	US-PATENT-APPL-SN-235268		US-PATENT-CLASS-317-16
	US-PATENT-CLASS-250-217SS		US-PATENT-CLASS-317-31
	US-PATENT-CLASS-331-94.5K		US-PATENT-3,795,840
	US-PATENT-CLASS-331-94.5S	c33 N74-17930	NASA-CASE-NUC-10107-1
	US-PATENT-CLASS-350-6		US-PATENT-APPL-SN-201700
	US-PATENT-CLASS-356-4		US-PATENT-CLASS-324-102
	US-PATENT-CLASS-356-5		US-PATENT-CLASS-324-118
	US-PATENT-CLASS-356-152		US-PATENT-CLASS-329-50
	US-PATENT-3,781,111		US-PATENT-3,795,862
c35 N74-15146	NASA-CASE-NFS-21455-1	c09 N74-17955	NASA-CASE-LAR-10812-1
	US-PATENT-APPL-SN-281877		US-PATENT-APPL-SN-263815
	US-PATENT-CLASS-73-71.3		US-PATENT-CLASS-73-147
	US-PATENT-CLASS-350-3.5		US-PATENT-3,791,207
	US-PATENT-CLASS-356-106	c35 N74-18088	NASA-CASE-LAR-11027-1
	US-PATENT-3,782,825		US-PATENT-APPL-SN-275118
c38 N74-15395	NASA-CASE-NFS-21233-1		US-PATENT-CLASS-250-338
	US-PATENT-APPL-SN-246056		US-PATENT-CLASS-250-370
	US-PATENT-CLASS-73-67.5R		US-PATENT-CLASS-250-371
	US-PATENT-CLASS-73-71.5U		US-PATENT-3,790,795
	US-PATENT-CLASS-324-40	c31 N74-18089	NASA-CASE-LAR-10318-1
	US-PATENT-3,782,177		US-PATENT-APPL-SN-224489
c07 N74-15453	NASA-CASE-LEW-11569-1		US-PATENT-CLASS-156-245
	US-PATENT-APPL-SN-316618		US-PATENT-CLASS-156-247
	US-PATENT-CLASS-181-43		US-PATENT-CLASS-156-285
	US-PATENT-3,780,827		US-PATENT-CLASS-156-309
c34 N74-15652	NASA-CASE-LAR-10105-1		US-PATENT-3,793,109
	US-PATENT-APPL-SN-170680	c35 N74-18090	NASA-CASE-NPO-13160-1
	US-PATENT-CLASS-73-86		US-PATENT-APPL-SN-359157
	US-PATENT-3,782,181		US-PATENT-CLASS-321-8R
c51 N74-15778	NASA-CASE-ARC-10302-1		US-PATENT-CLASS-324-57R
	US-PATENT-APPL-SN-203271		US-PATENT-3,795,858
	US-PATENT-CLASS-119-51.5	c37 N74-18123	NASA-CASE-LAR-10634-1
	US-PATENT-CLASS-119-51.13		US-PATENT-APPL-SN-214084
	US-PATENT-CLASS-119-51R		US-PATENT-CLASS-23-253PC
	US-PATENT-CLASS-119-52AF		US-PATENT-CLASS-23-259
	US-PATENT-CLASS-119-54		US-PATENT-CLASS-259-72
	US-PATENT-CLASS-221-265		US-PATENT-CLASS-312-209
	US-PATENT-3,782,334		US-PATENT-CLASS-356-85
c35 N74-15831	NASA-CASE-GSC-11553-1		US-PATENT-CLASS-356-197
	US-PATENT-APPL-SN-177985		US-PATENT-3,790,347
	US-PATENT-CLASS-34-162	c31 N74-18124	NASA-CASE-LAR-10489-1
	US-PATENT-CLASS-95-89R		US-PATENT-APPL-SN-198763
	US-PATENT-CLASS-178-6.7R		US-PATENT-CLASS-264-102
	US-PATENT-CLASS-219-216		US-PATENT-3,790,650
	US-PATENT-CLASS-219-388	c37 N74-18125	NASA-CASE-NFS-21309-1
	US-PATENT-CLASS-346-24		US-PATENT-APPL-SN-244519
	US-PATENT-CLASS-346-108		US-PATENT-CLASS-180-79.3
	US-PATENT-CLASS-346-138		US-PATENT-CLASS-301-5P
	US-PATENT-3,781,902		US-PATENT-3,789,947
c35 N74-16135	NASA-CASE-LAR-10595-1	c37 N74-18126	NASA-CASE-NFS-21364-1
	US-PATENT-APPL-SN-273240		US-PATENT-APPL-SN-214006
	US-PATENT-CLASS-340-5R		US-PATENT-CLASS-156-331
	US-PATENT-CLASS-340-8R		US-PATENT-CLASS-161-42
	US-PATENT-CLASS-340-12R		US-PATENT-CLASS-161-43
	US-PATENT-3,783,443		US-PATENT-CLASS-161-93
c35 N74-17153	NASA-CASE-NFS-21087-1		US-PATENT-CLASS-161-182
	US-PATENT-APPL-SN-149283		US-PATENT-CLASS-161-192
	US-PATENT-CLASS-350-3.5		US-PATENT-CLASS-260-2R
	US-PATENT-3,752,556		US-PATENT-CLASS-264-135

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-264-136		US-PATENT-3,800,074
	US-PATENT-CLASS-264-257	c37 N74-20063	NASA-CASE-LAR-10129-2
	US-PATENT-3,790,432		US-PATENT-APPL-SN-99201
c37 N74-18127	NASA-CASE-HFS-21481-1		US-PATENT-APPL-SN-319410
	US-PATENT-APPL-SN-266771		US-PATENT-CLASS-312-1
	US-PATENT-CLASS-74-594.6		US-PATENT-3,796,473
	US-PATENT-CLASS-74-594.7	c76 N74-20329	NASA-CASE-GSC-11425-1
	US-PATENT-CLASS-128-25R		US-PATENT-APPL-SN-206266
	US-PATENT-CLASS-272-73		US-PATENT-CLASS-148-1.5
	US-PATENT-CLASS-272-80		US-PATENT-3,799,813
	US-PATENT-3,788,163	c02 N74-20646	NASA-CASE-LEW-11188-1
c37 N74-18128	NASA-CASE-LEW-11387-1		US-PATENT-APPL-SN-152328
	US-PATENT-APPL-SN-247090		US-PATENT-CLASS-137-15.1
	US-PATENT-CLASS-29-482		US-PATENT-CLASS-137-15.2
	US-PATENT-CLASS-29-488		US-PATENT-CLASS-244-53B
	US-PATENT-CLASS-29-497		US-PATENT-3,799,475
	US-PATENT-CLASS-29-498	c54 N74-20725	NASA-CASE-HFS-22102-1
	US-PATENT-3,787,959		US-PATENT-APPL-SN-341621
c35 N74-18323	NASA-CASE-HFS-21136-1		US-PATENT-CLASS-4-10
	US-PATENT-APPL-SN-262430		US-PATENT-CLASS-4-120
	US-PATENT-CLASS-74-5.7		US-PATENT-3,805,303
	US-PATENT-CLASS-308-10	c52 N74-20726	NASA-CASE-ARC-10597-1
	US-PATENT-3,763,708		US-PATENT-APPL-SN-281876
c25 N74-18551	NASA-CASE-LAR-11053-1		US-PATENT-CLASS-73-67.9
	US-PATENT-APPL-SN-281875		US-PATENT-CLASS-128-2V
	US-PATENT-CLASS-73-15R		US-PATENT-3,802,253
	US-PATENT-3,789,654	c52 N74-20728	NASA-CASE-HFS-21415-1
c34 N74-18552	NASA-CASE-NPO-11120-1		US-PATENT-APPL-SN-318152
	US-PATENT-APPL-SN-39343		US-PATENT-CLASS-73-23
	US-PATENT-CLASS-29-157.3R		US-PATENT-CLASS-73-421.5R
	US-PATENT-CLASS-165-105		US-PATENT-CLASS-128-2.07
	US-PATENT-CLASS-267-166		US-PATENT-CLASS-128-2.08
	US-PATENT-3,789,920		US-PATENT-3,799,149
c72 N74-19310	NASA-CASE-HQN-10740-1	c32 N74-20809	NASA-CASE-HSC-12462-1
	US-PATENT-APPL-SN-266943		US-PATENT-APPL-SN-274360
	US-PATENT-CLASS-356-28		US-PATENT-CLASS-178-88
	US-PATENT-CLASS-356-106R		US-PATENT-CLASS-325-320
	US-PATENT-CLASS-356-112		US-PATENT-CLASS-325-423
	US-PATENT-3,795,448		US-PATENT-3,800,227
c09 N74-19528	NASA-CASE-LAR-10426-1	c32 N74-20810	NASA-CASE-HSC-12494-1
	US-PATENT-APPL-SN-239575		US-PATENT-APPL-SN-304705
	US-PATENT-CLASS-73-15.6		US-PATENT-CLASS-325-321
	US-PATENT-CLASS-73-91		US-PATENT-CLASS-325-419
	US-PATENT-3,795,134		US-PATENT-3,806,816
c44 N74-19692	NASA-CASE-GSC-11367-1	c32 N74-20811	NASA-CASE-NPO-13103-1
	US-PATENT-APPL-SN-236985		US-PATENT-APPL-SN-338484
	US-PATENT-CLASS-136-36		US-PATENT-CLASS-325-320
	US-PATENT-3,759,747		US-PATENT-CLASS-325-419
c44 N74-19693	NASA-CASE-NPO-11806-1		US-PATENT-CLASS-329-122
	US-PATENT-APPL-SN-228163		US-PATENT-3,806,815
	US-PATENT-CLASS-136-20	c32 N74-20813	NASA-CASE-FRC-10071-1
	US-PATENT-CLASS-136-30		US-PATENT-APPL-SN-307727
	US-PATENT-3,790,409		US-PATENT-CLASS-178-7.7
c24 N74-19769	NASA-CASE-ERC-10073-1		US-PATENT-CLASS-315-18
	US-PATENT-APPL-SN-856253		US-PATENT-CLASS-315-22
	US-PATENT-CLASS-117-95		US-PATENT-3,803,445
	US-PATENT-3,796,592	c60 N74-20836	NASA-CASE-ERC-10180-1
c27 N74-19772	NASA-CASE-LAR-11372-1		US-PATENT-APPL-SN-838278
	US-PATENT-APPL-SN-448321		US-PATENT-CLASS-235-164
c32 N74-19788	NASA-CASE-NPO-11820-1		US-PATENT-3,803,393
	US-PATENT-APPL-SN-266912	c33 N74-20859	NASA-CASE-XLE-2529-3
	US-PATENT-CLASS-307-237		US-PATENT-APPL-SN-288856
	US-PATENT-CLASS-328-160		US-PATENT-APPL-SN-487929
	US-PATENT-CLASS-328-168		US-PATENT-APPL-SN-848403
	US-PATENT-CLASS-328-172		US-PATENT-CLASS-315-211
	US-PATENT-CLASS-333-14		US-PATENT-CLASS-315-228
	US-PATENT-3,800,237		US-PATENT-CLASS-331-94.5D
c32 N74-19790	NASA-CASE-HFS-21540-1		US-PATENT-CLASS-332-7.51
	US-PATENT-APPL-SN-333912		US-PATENT-3,806,835
	US-PATENT-CLASS-178-7.1	c33 N74-20860	NASA-CASE-GSC-11446-1
	US-PATENT-CLASS-325-148		US-PATENT-APPL-SN-263230
	US-PATENT-3,800,224		US-PATENT-CLASS-343-DIG.2
c44 N74-19870	NASA-CASE-HFS-21470-1		US-PATENT-CLASS-343-100SA
	US-PATENT-APPL-SN-340871		US-PATENT-CLASS-343-100ST
	US-PATENT-CLASS-325-62		US-PATENT-CLASS-343-854
	US-PATENT-CLASS-333-17		US-PATENT-3,806,932
	US-PATENT-CLASS-343-7.5	c33 N74-20861	NASA-CASE-GSC-11560-1
	US-PATENT-CLASS-343-17.7		US-PATENT-APPL-SN-361906
	US-PATENT-3,795,910		US-PATENT-CLASS-95-53EA
c74 N74-20008	NASA-CASE-GSC-11188-3		US-PATENT-CLASS-350-269
	US-PATENT-APPL-SN-80029		US-PATENT-CLASS-354-234
	US-PATENT-APPL-SN-244566		US-PATENT-3,804,506
	US-PATENT-CLASS-117-45	c33 N74-20862	NASA-CASE-GSC-11513-1
	US-PATENT-3,799,793		US-PATENT-APPL-SN-315069
c36 N74-20009	NASA-CASE-NPO-11861-1		US-PATENT-CLASS-331-108A
	US-PATENT-APPL-SN-266911		US-PATENT-CLASS-331-115
	US-PATENT-CLASS-178-DIG.1		US-PATENT-CLASS-331-116R
	US-PATENT-CLASS-178-6		US-PATENT-CLASS-331-159
	US-PATENT-CLASS-178-7.6		US-PATENT-3,806,831

ACCESSION NUMBER INDEX

c32 N74-20863	NASA-CASE-GSC-11909 US-PATENT-APPL-SN-244158 US-PATENT-CLASS-343-730 US-PATENT-CLASS-343-786 US-PATENT-CLASS-343-797 US-PATENT-CLASS-343-853 US-PATENT-3,803,617	US-PATENT-CLASS-308-188 US-PATENT-CLASS-308-191 US-PATENT-3,802,753	
c32 N74-20864	NASA-CASE-GSC-11428-1 US-PATENT-APPL-SN-292685 US-PATENT-CLASS-343-708 US-PATENT-CLASS-343-769 US-PATENT-CLASS-343-853 US-PATENT-3,805,266	NASA-CASE-NPO-11951-1 US-PATENT-APPL-SN-287150 US-PATENT-CLASS-137-628 US-PATENT-CLASS-251-120 US-PATENT-CLASS-251-122 US-PATENT-CLASS-251-210 US-PATENT-3,802,660	
c71 N74-21014	NASA-CASE-HQN-10832-1 US-PATENT-APPL-SN-301417 US-PATENT-CLASS-35-35A US-PATENT-CLASS-178-DIG. 32 US-PATENT-CLASS-178-5.8R US-PATENT-CLASS-178-7.2 US-PATENT-CLASS-340-407 US-PATENT-3,800,082	NASA-CASE-GSC-11262-1 US-PATENT-APPL-SN-162380 US-PATENT-CLASS-33-285 US-PATENT-CLASS-250-204 US-PATENT-CLASS-356-141 US-PATENT-CLASS-356-152 US-PATENT-CLASS-356-172 US-PATENT-3,804,525	
c19 N74-21015	NASA-CASE-LAR-10626-1 US-PATENT-APPL-SN-202750 US-PATENT-CLASS-33-15A US-PATENT-CLASS-33-46R US-PATENT-3,798,778	NASA-CASE-APC-10592-1 US-PATENT-APPL-SN-321179 US-PATENT-CLASS-260.46.5E US-PATENT-3,803,090	
c35 N74-21017	NASA-CASE-MPS-21660-1 US-PATENT-APPL-SN-310616 US-PATENT-CLASS-324-83Q US-PATENT-3,806,802	NASA-CASE-ARC-10516-1 US-PATENT-APPL-SN-267768 US-PATENT-CLASS-350-270 US-PATENT-CLASS-354-234 US-PATENT-3,797,919	
c35 N74-21018	NASA-CASE-LEW-10981-1 US-PATENT-APPL-SN-214089 US-PATENT-CLASS-73-194EM US-PATENT-CLASS-310-11 US-PATENT-CLASS-324-34PL US-PATENT-3,802,262	NASA-CASE-GSC-11353-1 US-PATENT-APPL-SN-260241 US-PATENT-CLASS-250-231SE US-PATENT-CLASS-350-299 US-PATENT-CLASS-356-152 US-PATENT-3,802,779	
c35 N74-21019	NASA-CASE-GSC-11600-1 US-PATENT-APPL-SN-318357 US-PATENT-CLASS-73-1P US-PATENT-3,802,249	NASA-CASE-GSC-11602-1 US-PATENT-APPL-SN-298157 US-PATENT-CLASS-315-10 US-PATENT-CLASS-315-11 US-PATENT-CLASS-315-12 US-PATENT-3,806,756	
c37 N74-21055	NASA-CASE-LEW-11388-2 US-PATENT-APPL-SN-289033 US-PATENT-APPL-SN-293726 US-PATENT-CLASS-29-487 US-PATENT-CLASS-29-494 US-PATENT-CLASS-29-498 US-PATENT-CLASS-29-504 US-PATENT-3,798,748	c33 N74-21851	NASA-CASE-ARC-10596-1 US-PATENT-APPL-SN-267862 US-PATENT-CLASS-330-28 US-PATENT-CLASS-330-59 US-PATENT-3,811,094
c37 N74-21056	NASA-CASE-LAR-10688-1 US-PATENT-APPL-SN-285705 US-PATENT-CLASS-235-92PE US-PATENT-CLASS-235-92SB US-PATENT-CLASS-235-151 US-PATENT-3,800,253	c35 N74-22095	NASA-CASE-NPO-10617-1 US-PATENT-APPL-SN-828920 US-PATENT-CLASS-73-190H US-PATENT-3,648,516
c37 N74-21057	NASA-CASE-LAR-10941-1 US-PATENT-APPL-SN-289048 US-PATENT-CLASS-29-470.1 US-PATENT-3,797,098	c32 N74-22096	NASA-CASE-XLE-04791 US-PATENT-APPL-SN-582213 US-PATENT-CLASS-330-103 US-PATENT-3,404,348
c37 N74-21058	NASA-CASE-MPS-22411-1 US-PATENT-APPL-SN-382262 US-PATENT-CLASS-260-448.2N US-PATENT-3,801,617	c18 N74-22136	NASA-CASE-MPS-20922-1 US-PATENT-APPL-SN-220274 US-PATENT-CLASS-49-68 US-PATENT-CLASS-61-83 US-PATENT-CLASS-244-155 US-PATENT-3,807,656
c31 N74-21059	NASA-CASE-LAR-10409-1 US-PATENT-APPL-SN-340864 US-PATENT-CLASS-29-423 US-PATENT-3,798,741	c52 N74-22771	NASA-CASE-ARC-10447-1 US-PATENT-APPL-SN-311175 US-PATENT-CLASS-128-214E US-PATENT-CLASS-235-151.3 US-PATENT-3,809,871
c37 N74-21060	NASA-CASE-NPO-13105-1 US-PATENT-APPL-SN-283502 US-PATENT-CLASS-60-25 US-PATENT-3,798,896	c33 N74-22814	NASA-CASE-NPO-13081-1 US-PATENT-APPL-SN-345372 US-PATENT-CLASS-307-215 US-PATENT-CLASS-307-243 US-PATENT-CLASS-307-290 US-PATENT-CLASS-328-154 US-PATENT-3,808,464
c37 N74-21061	NASA-CASE-LEW-11076-1 US-PATENT-APPL-SN-238264 US-PATENT-CLASS-308-73 US-PATENT-3,804,472	c33 N74-22864	NASA-CASE-XER-11046-2 US-PATENT-APPL-SN-87597 US-PATENT-APPL-SN-810579 US-PATENT-CLASS-321-85R US-PATENT-3,808,511
c35 N74-21062	NASA-CASE-LAR-10295-1 US-PATENT-APPL-SN-221685 US-PATENT-CLASS-73-12 US-PATENT-CLASS-73-432 US-PATENT-3,805,622	c33 N74-22865	NASA-CASE-LAR-10168-1 US-PATENT-APPL-SN-354407 US-PATENT-CLASS-174-DIG. 8 US-PATENT-CLASS-174-69 US-PATENT-CLASS-174-70R US-PATENT-CLASS-244-151R US-PATENT-3,809,800
c37 N74-21063	NASA-CASE-LEW-10698-1 US-PATENT-APPL-SN-30498 US-PATENT-CLASS-65-DIG. 11 US-PATENT-CLASS-106-52 US-PATENT-CLASS-117-129 US-PATENT-CLASS-161-196 US-PATENT-3,804,703	c33 N74-22885	NASA-CASE-MPS-21671-1 US-PATENT-APPL-SN-329958 US-PATENT-CLASS-323-106 US-PATENT-CLASS-323-122 US-PATENT-CLASS-323-128 US-PATENT-3,808,517
c37 N74-21064	NASA-CASE-LEW-11087-3 US-PATENT-APPL-SN-201904 US-PATENT-APPL-SN-346361	c34 N74-23039	NASA-CASE-GSC-11620-1

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-280305		US-PATENT-CLASS-177-211
	US-PATENT-CLASS-126-270		US-PATENT-CLASS-177-246
	US-PATENT-CLASS-244-31		US-PATENT-3,812,924
	US-PATENT-CLASS-244-127	c35 N74-26946	NASA-CASE-NFS-22040-1
	US-PATENT-3,807,384		US-PATENT-APPL-SN-365644
c35 N74-23040	NASA-CASE-NPO-11932-1		US-PATENT-CLASS-96-38.3
	NASA-CASE-NPO-13127-1		US-PATENT-CLASS-96-79
	US-PATENT-APPL-SN-311234		US-PATENT-CLASS-350-3.5
	US-PATENT-CLASS-356-113		US-PATENT-3,815,969
	US-PATENT-CLASS-356-1065	c25 N74-26947	NASA-CASE-ARC-10633-1
	US-PATENT-3,809,481		US-PATENT-APPL-SN-354611
c37 N74-23064	NASA-CASE-LAR-10900-1		US-PATENT-CLASS-250-304
	US-PATENT-APPL-SN-290021		US-PATENT-CLASS-250-343
	US-PATENT-CLASS-161-116		US-PATENT-CLASS-250-373
	US-PATENT-3,809,601		US-PATENT-3,814,939
c31 N74-23065	NASA-CASE-NPO-11758-1	c25 N74-26948	NASA-CASE-NFS-21395-1
	US-PATENT-APPL-SN-266913		US-PATENT-APPL-SN-260093
	US-PATENT-CLASS-204-222		US-PATENT-CLASS-204-180R
	US-PATENT-3,810,829		US-PATENT-3,814,678
c34 N74-23066	NASA-CASE-LAR-10089-1	c35 N74-26949	NASA-CASE-GSC-11492-1
	US-PATENT-APPL-SN-305638		US-PATENT-APPL-SN-372148
	US-PATENT-CLASS-240-47		US-PATENT-CLASS-250-374
	US-PATENT-CLASS-353-54		US-PATENT-CLASS-250-385
	US-PATENT-CLASS-353-61		US-PATENT-CLASS-313-93
	US-PATENT-3,811,044		US-PATENT-3,812,358
c46 N74-23068	NASA-CASE-XNP-10007-1	c37 N74-26976	NASA-CASE-NFS-21846-1
	US-PATENT-APPL-SN-611414		US-PATENT-APPL-SN-359958
	US-PATENT-APPL-SN-768942		US-PATENT-CLASS-188-163
	US-PATENT-CLASS-299-67		US-PATENT-CLASS-188-171
	US-PATENT-3,606,470		US-PATENT-3,812,936
c46 N74-23069	NASA-CASE-XNP-09755	c33 N74-26977	NASA-CASE-NFS-22133-1
	US-PATENT-APPL-SN-611414		US-PATENT-APPL-SN-337487
	US-PATENT-APPL-SN-857241		US-PATENT-CLASS-29-203MW
	US-PATENT-CLASS-51-283		US-PATENT-3,815,205
	US-PATENT-CLASS-125-1	c24 N74-27035	NASA-CASE-XLA-11028-1
	US-PATENT-CLASS-125-3		US-PATENT-APPL-SN-219435
	US-PATENT-CLASS-299-86		US-PATENT-CLASS-156-285
	US-PATENT-3,612,030		US-PATENT-3,814,653
c37 N74-23070	NASA-CASE-NFS-20645-1	c27 N74-27037	NASA-CASE-ARC-10304-2
	US-PATENT-APPL-SN-103091		US-PATENT-APPL-SN-140946
	US-PATENT-CLASS-74-217R		US-PATENT-APPL-SN-318358
	US-PATENT-3,678,771		US-PATENT-CLASS-102-105
c27 N74-23125	NASA-CASE-LEW-10199-1		US-PATENT-CLASS-106-15FP
	US-PATENT-APPL-SN-651972		US-PATENT-CLASS-252-8.1
	US-PATENT-CLASS-117-126GR		US-PATENT-CLASS-252-62
	US-PATENT-CLASS-117-132B		US-PATENT-CLASS-260-DIG.24
	US-PATENT-CLASS-117-161UN		US-PATENT-CLASS-260-2.5FP
	US-PATENT-CLASS-260-78TP		US-PATENT-CLASS-260-2.5R
	US-PATENT-3,647,529		US-PATENT-CLASS-260-2R
c37 N74-25968	NASA-CASE-NFS-21485-1		US-PATENT-CLASS-260-396N
	US-PATENT-APPL-SN-277436		US-PATENT-3,819,550
	US-PATENT-CLASS-90-12.5	c15 N74-27360	NASA-CASE-LAR-10670-2
	US-PATENT-CLASS-408-80		US-PATENT-APPL-SN-59892
	US-PATENT-CLASS-408-111		US-PATENT-APPL-SN-248761
	US-PATENT-3,813,183		US-PATENT-CLASS-60-39.46
c52 N74-26625	NASA-CASE-NPO-13065-1		US-PATENT-CLASS-60-214
	US-PATENT-APPL-SN-269073		US-PATENT-CLASS-60-215
	US-PATENT-CLASS-128-2.1A		US-PATENT-CLASS-102-90
	US-PATENT-CLASS-325-113		US-PATENT-3,813,875
	US-PATENT-CLASS-325-141	c18 N74-27397	NASA-CASE-NFS-21680-1
	US-PATENT-CLASS-340-183		NASA-CASE-NFS-21681-1
	US-PATENT-CLASS-340-203		US-PATENT-APPL-SN-343607
	US-PATENT-CLASS-340-207R		US-PATENT-CLASS-244-15S
	US-PATENT-3,815,109		US-PATENT-CLASS-248-16
c52 N74-26626	NASA-CASE-HSC-13999-1		US-PATENT-CLASS-248-23
	US-PATENT-APPL-SN-256317		US-PATENT-3,814,350
	US-PATENT-CLASS-128-2.05A	c28 N74-27425	NASA-CASE-NPO-11743-1
	US-PATENT-CLASS-128-2.05S		US-PATENT-APPL-SN-277904
	US-PATENT-3,814,083		US-PATENT-CLASS-102-28EB
c32 N74-26654	NASA-CASE-HSC-14065-1		US-PATENT-CLASS-102-70.2A
	US-PATENT-APPL-SN-297128		US-PATENT-CLASS-102-70-2R
	US-PATENT-CLASS-178-67		US-PATENT-3,812,783
	US-PATENT-CLASS-325-30	c07 N74-27490	NASA-CASE-LEW-11286-1
	US-PATENT-3,816,657		US-PATENT-APPL-SN-339806
c33 N74-26732	NASA-CASE-NFS-21698-1		US-PATENT-CLASS-181-33HB
	US-PATENT-APPL-SN-37050		US-PATENT-CLASS-239-265.17
	US-PATENT-CLASS-331-109		US-PATENT-3,820,630
	US-PATENT-CLASS-331-117R	c44 N74-27519	NASA-CASE-NFS-20761-1
	US-PATENT-CLASS-331-183		US-PATENT-APPL-SN-326327
	US-PATENT-3,815,048		US-PATENT-CLASS-136-182
c73 N74-26767	NASA-CASE-NPO-13112-1		US-PATENT-CLASS-324-29.5
	US-PATENT-APPL-SN-267572		US-PATENT-CLASS-324-72.5
	US-PATENT-CLASS-250-499		US-PATENT-3,818,325
	US-PATENT-CLASS-313-61S	c52 N74-27566	NASA-CASE-GSC-11531-1
	US-PATENT-3,816,785		US-PATENT-APPL-SN-291845
c35 N74-26945	NASA-CASE-NFS-21556-1		US-PATENT-CLASS-73-398AR
	US-PATENT-APPL-SN-340791		US-PATENT-CLASS-128-2.05E
	US-PATENT-CLASS-73-141A		US-PATENT-3,811,429
	US-PATENT-CLASS-177-200	c32 N74-27612	NASA-CASE-HSC-14219-1

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-324029		US-PATENT-CLASS-98-39
	US-PATENT-CLASS-117-2R		US-PATENT-CLASS-236-49
	US-PATENT-CLASS-156-94		US-PATENT-3,818,814
	US-PATENT-CLASS-179-100, 2A	c37 N74-27903	NASA-CASE-HSC-12549-1
	US-PATENT-CLASS-179-100, 2B		US-PATENT-APPL-SN-301039
	US-PATENT-CLASS-264-36		US-PATENT-CLASS-244-15D
	US-PATENT-3,819,440		US-PATENT-3,820,741
c33 N74-27682	NASA-CASE-ARC-10593-1	c37 N74-27904	NASA-CASE-LEW-11672-1
	US-PATENT-APPL-SN-310193		US-PATENT-APPL-SN-305639
	US-PATENT-CLASS-250-207		US-PATENT-CLASS-417-52
	US-PATENT-CLASS-307-252L		US-PATENT-3,819,299
	US-PATENT-CLASS-307-252Q	c37 N74-27905	NASA-CASE-LAR-10450-1
	US-PATENT-3,821,546		US-PATENT-APPL-SN-289017
c33 N74-27683	NASA-CASE-LEW-10950-1		US-PATENT-CLASS-51-97R
	US-PATENT-APPL-SN-273222		US-PATENT-CLASS-51-225
	US-PATENT-CLASS-174-15C		US-PATENT-CLASS-51-234
	US-PATENT-CLASS-174-28		US-PATENT-3,820,286
	US-PATENT-CLASS-174-111	c35 N74-28097	NASA-CASE-GSC-11479-1
	US-PATENT-CLASS-310-4R		US-PATENT-APPL-SN-293739
	US-PATENT-3,821,462		US-PATENT-CLASS-74-5.5
c33 N74-27705	NASA-CASE-HSC-14066-1		US-PATENT-CLASS-244-15A
	US-PATENT-APPL-SN-297127		US-PATENT-3,818,767
	US-PATENT-CLASS-178-88	c07 N74-28226	NASA-CASE-LEW-11402-1
	US-PATENT-CLASS-325-320		US-PATENT-APPL-SN-219806
	US-PATENT-3,818,346		US-PATENT-CLASS-415-181
c34 N74-27730	NASA-CASE-HFS-21424-1		US-PATENT-CLASS-416-223
	US-PATENT-APPL-SN-315048		US-PATENT-CLASS-416-237
	US-PATENT-CLASS-73-3		US-PATENT-3,820,918
	US-PATENT-CLASS-73-147	c19 N74-29410	NASA-CASE-HFS-21577-1
	US-PATENT-3,817,082		US-PATENT-APPL-SN-343308
c34 N74-27744	NASA-CASE-HFS-21394-1		US-PATENT-CLASS-250-372
	US-PATENT-APPL-SN-258171		US-PATENT-CLASS-250-394
	US-PATENT-CLASS-204-180R		US-PATENT-3,825,760
	US-PATENT-CLASS-204-299	c33 N74-29556	NASA-CASE-KSC-10769-1
	US-PATENT-3,821,102		US-PATENT-APPL-SN-374583
c34 N74-27859	NASA-CASE-GSC-11434-1		US-PATENT-CLASS-318-602
	US-PATENT-APPL-SN-263898		US-PATENT-CLASS-318-603
	US-PATENT-CLASS-73-190R		US-PATENT-CLASS-318-664
	US-PATENT-3,813,937		US-PATENT-3,826,964
c35 N74-27860	NASA-CASE-HSC-14081-1	c24 N74-30001	NASA-CASE-LAR-10416-1
	US-PATENT-APPL-SN-331760		US-PATENT-APPL-SN-251752
	US-PATENT-CLASS-250-576		US-PATENT-CLASS-156-94
	US-PATENT-CLASS-356-180		US-PATENT-3,814,645
	US-PATENT-CLASS-356-246	c74 N74-30118	NASA-CASE-LAR-11206-1
	US-PATENT-3,817,627		US-PATENT-APPL-SN-491413
c34 N74-27861	NASA-CASE-HFS-21108-1	c75 N74-30156	NASA-CASE-ARC-10598-1
	US-PATENT-APPL-SN-307728		US-PATENT-APPL-SN-318151
	US-PATENT-CLASS-136-213		US-PATENT-CLASS-356-43
	US-PATENT-CLASS-136-230		US-PATENT-CLASS-356-73
	US-PATENT-CLASS-136-233		US-PATENT-CLASS-356-85
	US-PATENT-3,819,419		US-PATENT-CLASS-356-87
c33 N74-27862	NASA-CASE-KSC-10731-1		US-PATENT-CLASS-356-201
	US-PATENT-APPL-SN-288847		US-PATENT-3,817,622
	US-PATENT-CLASS-73-170R	c08 N74-30421	NASA-CASE-LAR-10753-1
	US-PATENT-CLASS-324-72		US-PATENT-APPL-SN-289018
	US-PATENT-CLASS-340-151		US-PATENT-CLASS-244-90R
	US-PATENT-CLASS-340-182		US-PATENT-CLASS-244-91
	US-PATENT-CLASS-340-200		US-PATENT-CLASS-244-327
	US-PATENT-3,820,095		US-PATENT-3,826,448
c52 N74-27864	NASA-CASE-HFS-21049-1	c25 N74-30502	NASA-CASE-LEW-10906-1
	US-PATENT-APPL-SN-304430		US-PATENT-APPL-SN-245279
	US-PATENT-CLASS-73-88, 5R		US-PATENT-APPL-SN-876588
	US-PATENT-CLASS-128-25		US-PATENT-CLASS-204-157, 1R
	US-PATENT-CLASS-338-5		US-PATENT-3,826,726
	US-PATENT-CLASS-338-114	c32 N74-30523	NASA-CASE-WPO-11921-1
	US-PATENT-3,820,529		US-PATENT-APPL-SN-359039
c35 N74-27865	NASA-CASE-HFS-21728-1		US-PATENT-CLASS-179-15BC
	US-PATENT-APPL-SN-361907		US-PATENT-CLASS-325-346
	US-PATENT-CLASS-73-141A		US-PATENT-3,828,138
	US-PATENT-3,820,388	c32 N74-30524	NASA-CASE-HSC-13912-1
c74 N74-27866	NASA-CASE-HFS-21372-1		US-PATENT-APPL-SN-310034
	US-PATENT-APPL-SN-226477		US-PATENT-CLASS-179-15AT
	US-PATENT-CLASS-250-505		US-PATENT-CLASS-179-15BY
	US-PATENT-CLASS-250-511		US-PATENT-3,828,137
	US-PATENT-3,821,556	c09 N74-30597	NASA-CASE-LAR-10550-1
c06 N74-27872	NASA-CASE-ARC-10806		US-PATENT-APPL-SN-261183
	US-PATENT-APPL-SN-478802		US-PATENT-CLASS-35-12E
c31 N74-27900	NASA-CASE-LAR-10841-1		US-PATENT-3,824,707
	US-PATENT-APPL-SN-307729	c34 N74-30608	NASA-CASE-LAR-10194-1
	US-PATENT-CLASS-13-31		US-PATENT-APPL-SN-169962
	US-PATENT-CLASS-73-15R		US-PATENT-CLASS-55-43
	US-PATENT-3,817,084		US-PATENT-CLASS-55-159
c37 N74-27901	NASA-CASE-ARC-10462-1		US-PATENT-CLASS-55-199
	US-PATENT-APPL-SN-310615		US-PATENT-3,828,524
	US-PATENT-CLASS-74-675	c89 N74-30886	NASA-CASE-GSC-11569-1
	US-PATENT-CLASS-74-710		US-PATENT-APPL-SN-293725
	US-PATENT-3,818,775		US-PATENT-CLASS-33-268
c31 N74-27902	NASA-CASE-GSC-11445-1		US-PATENT-CLASS-250-203R
	US-PATENT-APPL-SN-248471		US-PATENT-CLASS-356-141

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-356-147		US-PATENT-CLASS-249-95
	US-PATENT-3,827,807		US-PATENT-CLASS-249-145
c71 N74-31148	NASA-CASE-NPO-11623-1		US-PATENT-CLASS-249-184
	US-PATENT-APPL-SN-235338		US-PATENT-CLASS-425-128
	US-PATENT-CLASS-73-69		US-PATENT-CLASS-425-415
	US-PATENT-CLASS-73-71.5R		US-PATENT-3,830,609
	US-PATENT-CLASS-181.5R	c37 N74-32921	NASA-CASE-LEW-11076-2
	US-PATENT-3,827,288		US-PATENT-APPL-SN-238264
c20 N74-31269	NASA-CASE-LEW-11646-1		US-PATENT-APPL-SN-346483
	US-PATENT-APPL-SN-292686		US-PATENT-CLASS-308-121
	US-PATENT-CLASS-204-192		US-PATENT-3,830,552
	US-PATENT-3,826,729	c28 N74-33209	NASA-CASE-NPO-11975-1
c07 N74-31270	NASA-CASE-LAR-10642-1		US-PATENT-APPL-SN-329243
	US-PATENT-APPL-SN-266820		US-PATENT-CLASS-149-17
	US-PATENT-CLASS-137-15.1		US-PATENT-CLASS-149-60
	US-PATENT-CLASS-415-181		US-PATENT-CLASS-149-76
	US-PATENT-3,829,237		US-PATENT-3,830,673
c07 N74-32418	NASA-CASE-LAR-11141-1	c07 N74-33218	NASA-CASE-ARC-10712-1
	US-PATENT-APPL-SN-359957		US-PATENT-APPL-SN-344410
	US-PATENT-CLASS-181-33C		US-PATENT-CLASS-181-33HC
	US-PATENT-CLASS-181-33F		US-PATENT-CLASS-239-265.11
	US-PATENT-CLASS-181-33H		US-PATENT-3,830,431
	US-PATENT-CLASS-181-33L	c25 N74-33378	NASA-CASE-HFS-21675-1
	US-PATENT-CLASS-181-42		US-PATENT-APPL-SN-392823
	US-PATENT-3,830,335		US-PATENT-CLASS-23-277C
c54 N74-32546	NASA-CASE-MSC-11072		US-PATENT-CLASS-431-202
	US-PATENT-APPL-SN-689455		US-PATENT-3,833,336
	US-PATENT-CLASS-2-2.1A	c44 N74-33379	NASA-CASE-ARC-10461-1
	US-PATENT-CLASS-2-82		US-PATENT-APPL-SN-336319
	US-PATENT-CLASS-156-218		US-PATENT-CLASS-60-527
	US-PATENT-3,832,735		US-PATENT-3,830,060
c32 N74-32598	NASA-CASE-MSC-14070-1	c33 N74-34638	NASA-CASE-HFS-22343-1
	US-PATENT-APPL-SN-266940		US-PATENT-APPL-SN-329237
	US-PATENT-CLASS-340-146.1A		US-PATENT-CLASS-307-18
	US-PATENT-3,831,142		US-PATENT-CLASS-307-35
c33 N74-32660	NASA-CASE-GSC-11617-1		US-PATENT-CLASS-307-295
	US-PATENT-APPL-SN-402865		US-PATENT-CLASS-307-304
	US-PATENT-CLASS-330-4.9		US-PATENT-3,840,829
	US-PATENT-CLASS-330-53	c85 N74-34672	NASA-CASE-LAR-10256-1
	US-PATENT-3,833,857		US-PATENT-APPL-SN-220785
c33 N74-32711	NASA-CASE-MSC-14130-1		US-PATENT-CLASS-104-23F5
	US-PATENT-APPL-SN-373587		US-PATENT-CLASS-104-138R
	US-PATENT-CLASS-307-267		US-PATENT-CLASS-238-134
	US-PATENT-CLASS-328-58		US-PATENT-3,837,285
	US-PATENT-3,831,098	c35 N74-34857	NASA-CASE-LAR-11428-1
c33 N74-32712	NASA-CASE-NPO-11948-1		US-PATENT-APPL-SN-188836
	US-PATENT-APPL-SN-306652		US-PATENT-APPL-SN-357126
	US-PATENT-CLASS-307-230		US-PATENT-CLASS-250-281
	US-PATENT-CLASS-330-69		US-PATENT-CLASS-250-295
	US-PATENT-CLASS-333-80R		US-PATENT-3,835,318
	US-PATENT-3,831,117	c34 N74-34881	NASA-CASE-LAR-11522-1
c35 N74-32877	NASA-CASE-LAR-10806-1		US-PATENT-APPL-SN-513689
	US-PATENT-APPL-SN-322998	c25 N75-12086	NASA-CASE-ARC-10469-1
	US-PATENT-CLASS-33-1H		US-PATENT-APPL-SN-281908
	US-PATENT-CLASS-33-23R		US-PATENT-CLASS-195-103.5R
	US-PATENT-CLASS-338-89		US-PATENT-3,846,243
	US-PATENT-CLASS-340-347AD	c25 N75-12087	NASA-CASE-ARC-10643-1
	US-PATENT-CLASS-346-33R		US-PATENT-APPL-SN-513389
	US-PATENT-3,832,781		US-PATENT-CLASS-117-93.1GD
c35 N74-32878	NASA-CASE-LAR-11139-1		US-PATENT-CLASS-117-1610A
	US-PATENT-APPL-SN-287149		US-PATENT-CLASS-117-1610H
	US-PATENT-CLASS-73-182		US-PATENT-CLASS-117-1610Z
	US-PATENT-CLASS-73-388		US-PATENT-CLASS-204-177
	US-PATENT-3,832,903		US-PATENT-CLASS-210-500
c35 N74-32879	NASA-CASE-MSC-14187-1		US-PATENT-CLASS-264-22
	US-PATENT-APPL-SN-326326		US-PATENT-CLASS-264-217
	US-PATENT-CLASS-23-230L		US-PATENT-3,847,652
	US-PATENT-CLASS-73-15.4	c31 N75-12161	NASA-CASE-HFS-20775-1
	US-PATENT-CLASS-73-40.7		US-PATENT-APPL-SN-356664
	US-PATENT-CLASS-73-104		US-PATENT-CLASS-118-49.1
	US-PATENT-3,830,094		US-PATENT-3,847,115
c31 N74-32917	NASA-CASE-NPO-13205-1	c34 N75-12222	NASA-CASE-GSC-11619-1
	US-PATENT-APPL-SN-393525		US-PATENT-APPL-SN-397476
	US-PATENT-CLASS-425-28B		US-PATENT-CLASS-138-113
	US-PATENT-CLASS-425-35		US-PATENT-CLASS-138-114
	US-PATENT-3,833,322		US-PATENT-CLASS-138-148
c37 N74-32918	NASA-CASE-NPO-13157-1		US-PATENT-CLASS-165-1
	US-PATENT-APPL-SN-370872		US-PATENT-CLASS-165-47
	US-PATENT-CLASS-29-203H		US-PATENT-CLASS-165-105
	US-PATENT-CLASS-29-268		US-PATENT-CLASS-220-15
	US-PATENT-3,832,764		US-PATENT-CLASS-244-15C
c20 N74-32919	NASA-CASE-LEW-11118-1		US-PATENT-3,847,208
	US-PATENT-APPL-SN-289050	c35 N75-12270	NASA-CASE-KSC-10750-1
	US-PATENT-CLASS-204-9		US-PATENT-APPL-SN-346372
	US-PATENT-3,832,290		US-PATENT-CLASS-324-60C
c31 N74-32920	NASA-CASE-LAR-10489-2		US-PATENT-CLASS-324-158T
	US-PATENT-APPL-SN-198763		US-PATENT-3,848,190
	US-PATENT-APPL-SN-350300	c35 N75-12271	NASA-CASE-HFS-20994-1
	US-PATENT-CLASS-249-83		US-PATENT-APPL-SN-386789

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-73-67.1				US-PATENT-CLASS-330-6
	US-PATENT-CLASS-128-2V				US-PATENT-3,849,875
	US-PATENT-3,847,191		c37 N75-13261	.....	NASA-CASE-LEW-11696-1
c35 N75-12272	.....	NASA-CASE-LAR-11069-1			US-PATENT-APPL-SN-298156
	US-PATENT-APPL-SN-326198				US-PATENT-CLASS-29-196.6
	US-PATENT-CLASS-195-127				US-PATENT-CLASS-29-197
	US-PATENT-3,841,973				US-PATENT-CLASS-29-060
c35 N75-12273	.....	NASA-CASE-MFS-20506-1			US-PATENT-CLASS-29-094
	US-PATENT-APPL-SN-328792				US-PATENT-CLASS-29-497.5
	US-PATENT-CLASS-33-DIG. 13				US-PATENT-CLASS-29-504
	US-PATENT-CLASS-33-180R				US-PATENT-3,849,865
	US-PATENT-CLASS-350-292		c37 N75-13265	.....	NASA-CASE-KSC-10723-1
	US-PATENT-3,842,509				US-PATENT-APPL-SN-347952
c37 N75-12326	.....	NASA-CASE-LAR-11211-1			US-PATENT-CLASS-338-75
	US-PATENT-APPL-SN-302681				US-PATENT-CLASS-338-97
	US-PATENT-CLASS-29-470.1				US-PATENT-CLASS-338-162
	US-PATENT-CLASS-29-475				US-PATENT-3,854,113
	US-PATENT-3,842,485		c37 N75-13266	.....	NASA-CASE-NPO-13281-1
c54 N75-12616	.....	NASA-CASE-MFS-21611-1			US-PATENT-APPL-SN-412079
	US-PATENT-APPL-SN-403694				US-PATENT-CLASS-74-436
	US-PATENT-CLASS-214-1CM				US-PATENT-CLASS-74-820
	US-PATENT-CLASS-307-149				US-PATENT-3,855,873
	US-PATENT-CLASS-308-174		c37 N75-13268	.....	NASA-CASE-LAP-11643-1
	US-PATENT-3,849,668				US-PATENT-APPL-SN-531649
c74 N75-12732	.....	NASA-CASE-ARC-10448-2			NASA-CASE-LAR-11074-1
	US-PATENT-APPL-SN-374424		c51 N75-13502	.....	US-PATENT-APPL-SN-326364
	US-PATENT-CLASS-156-7				US-PATENT-CLASS-115-103.5
	US-PATENT-CLASS-156-16				US-PATENT-CLASS-195-120
	US-PATENT-CLASS-156-18				US-PATENT-CLASS-195-127
	US-PATENT-CLASS-250-495				US-PATENT-3,850,754
	US-PATENT-3,847,689		c51 N75-13506	.....	NASA-CASE-ARC-10643-2
c76 N75-12810	.....	NASA-CASE-LAR-11059-1			US-PATENT-APPL-SN-521619
	US-PATENT-APPL-SN-367294		c54 N75-13531	.....	NASA-CASE-LEW-11581-1
	US-PATENT-CLASS-73-32R				US-PATENT-APPL-SN-327921
	US-PATENT-CLASS-73-432PS				US-PATENT-CLASS-128-2.05A
	US-PATENT-3,842,656				US-PATENT-CLASS-128-2.05P
c05 N75-12930	.....	NASA-CASE-ARC-10456-1			US-PATENT-3,850,169
	US-PATENT-APPL-SN-237491		c60 N75-13539	.....	NASA-CASE-ARC-10466-1
	US-PATENT-CLASS-74-480R				US-PATENT-APPL-SN-352382
	US-PATENT-CLASS-244-75R				US-PATENT-CLASS-235-156
	US-PATENT-CLASS-244-83R				US-PATENT-CLASS-235-197
	US-PATENT-CLASS-416-25				US-PATENT-CLASS-324-77B
	US-PATENT-3,850,388				US-PATENT-3,851,162
c09 N75-12968	.....	NASA-CASE-MFS-22039-1	c75 N75-13625	.....	NASA-CASE-MFS-22145-1
	US-PATENT-APPL-SN-386790				US-PATENT-APPL-SN-367606
	US-PATENT-CLASS-108-136				US-PATENT-CLASS-176-3
	US-PATENT-3,853,075				US-PATENT-CLASS-313-63
c09 N75-12969	.....	NASA-CASE-ARC-10710-1			US-PATENT-CLASS-315-111
	US-PATENT-APPL-SN-379019				US-PATENT-CLASS-328-233
	US-PATENT-CLASS-73-147				US-PATENT-3,854,097
	US-PATENT-3,853,003		c23 N75-14834	.....	NASA-CASE-MSC-13530-2
c15 N75-13007	.....	NASA-CASE-GSC-11182-1			US-PATENT-APPL-SN-69488
	US-PATENT-APPL-SN-393527				US-PATENT-APPL-SN-178771
	US-PATENT-CLASS-325-4				US-PATENT-CLASS-106-13
	US-PATENT-3,851,250				US-PATENT-CLASS-106-15R
c24 N75-13032	.....	NASA-CASE-LAR-10994-1			US-PATENT-CLASS-106-287SB
	US-PATENT-APPL-SN-390466				US-PATENT-CLASS-117-124F
	US-PATENT-CLASS-29-420				US-PATENT-CLASS-117-135.5
	US-PATENT-CLASS-29-604				US-PATENT-CLASS-252-70
	US-PATENT-CLASS-75-200				US-PATENT-CLASS-252-549
	US-PATENT-CLASS-340-174MA				US-PATENT-3,856,534
	US-PATENT-3,849,877		c25 N75-14844	.....	NASA-CASE-NPO-12130-1
c25 N75-13054	.....	NASA-CASE-LAR-11302-1			US-PATENT-APPL-SN-750235
	US-PATENT-APPL-SN-521007				US-PATENT-CLASS-23-230B
	NASA-CASE-LAR-10782-2				US-PATENT-CLASS-23-253R
c31 N75-13111	.....	US-PATENT-APPL-SN-197689			US-PATENT-3,856,471
	US-PATENT-APPL-SN-379049		c33 N75-14957	.....	NASA-CASE-MSC-14240-1
	US-PATENT-CLASS-249-59				US-PATENT-APPL-SN-351929
	US-PATENT-CLASS-249-144				US-PATENT-CLASS-307-205
	US-PATENT-CLASS-249-145				US-PATENT-CLASS-307-208
	US-PATENT-CLASS-425-DIG. 43				US-PATENT-3,857,045
	US-PATENT-CLASS-425-405R		c35 N75-15014	.....	NASA-CASE-LAR-11213-1
	US-PATENT-CLASS-425-438				US-PATENT-APPL-SN-406715
	US-PATENT-CLASS-425-468				US-PATENT-CLASS-250-201
	US-PATENT-3,850,567				US-PATENT-CLASS-356-4
c33 N75-13139	.....	NASA-CASE-MFS-22073-1			US-PATENT-3,857,031
	US-PATENT-APPL-SN-409991		c36 N75-15028	.....	NASA-CASE-MFS-21244-1
	US-PATENT-CLASS-318-608				US-PATENT-APPL-SN-350249
	US-PATENT-CLASS-318-640				US-PATENT-CLASS-356-5
	US-PATENT-CLASS-318-649				US-PATENT-CLASS-356-28
	US-PATENT-CLASS-318-675				US-PATENT-CLASS-356-103
	US-PATENT-3,851,238				US-PATENT-3,856,402
c35 N75-13213	.....	NASA-CASE-LEW-11632-2	c36 N75-15029	.....	NASA-CASE-NPO-13050-1
	US-PATENT-APPL-SN-254173				US-PATENT-APPL-SN-317567
	US-PATENT-APPL-SN-327969				US-PATENT-CLASS-117-95
	US-PATENT-CLASS-29-571				US-PATENT-CLASS-117-97
	US-PATENT-CLASS-29-592				US-PATENT-CLASS-330-4
	US-PATENT-CLASS-307-309				US-PATENT-CLASS-332-7.5
	US-PATENT-CLASS-317-235H				US-PATENT-3,859,119

ACCESSION NUMBER INDEX

c37 N75-15050	NASA-CASE-NPO-13201-1 US-PATENT-APPL-SN-372149 US-PATENT-CLASS-74-424.8VA US-PATENT-CLASS-137-505.38 US-PATENT-CLASS-137-505.42 US-PATENT-3,856,042	US-PATENT-CLASS-29-196.2 US-PATENT-CLASS-29-196.6 US-PATENT-CLASS-29-197 US-PATENT-3,869,779	
c52 N75-15270	NASA-CASE-NPO-12119-1 US-PATENT-APPL-SN-847815 US-PATENT-CLASS-424-180 US-PATENT-3,849,554	NASA-CASE-HSC-14131-1 US-PATENT-APPL-SN-373588 US-PATENT-CLASS-307-260 US-PATENT-CLASS-324-78J US-PATENT-CLASS-328-59 US-PATENT-CLASS-331-78 US-PATENT-3,866,128	
c09 N75-15662	NASA-CASE-LAR-10276-1 US-PATENT-APPL-SN-29979 US-PATENT-CLASS-35-12C US-PATENT-CLASS-272-1R US-PATENT-CLASS-272-57A US-PATENT-3,859,736	c33 N75-19516	NASA-CASE-GSC-11760-1 NASA-CASE-GSC-11783-1 US-PATENT-APPL-SN-395868 US-PATENT-CLASS-343-761 US-PATENT-CLASS-343-781 US-PATENT-CLASS-343-837 US-PATENT-3,866,233
c32 N75-15854	NASA-CASE-NPO-13292-1 US-PATENT-APPL-SN-416135 US-PATENT-CLASS-343-6.5R US-PATENT-CLASS-343-9 US-PATENT-CLASS-343-17.5 US-PATENT-CLASS-343-100ST US-PATENT-3,860,921	c33 N75-19517	NASA-CASE-GSC-11582-1 US-PATENT-APPL-SN-397477 US-PATENT-CLASS-178-15 US-PATENT-CLASS-315-18 US-PATENT-CLASS-340-324AD US-PATENT-3,866,210
c33 N75-15874	NASA-CASE-HFS-22088-1 US-PATENT-APPL-SN-426155 US-PATENT-CLASS-318-227 US-PATENT-CLASS-318-230 US-PATENT-CLASS-318-231 US-PATENT-3,860,858	c33 N75-19518	NASA-CASE-ARC-10348-1 US-PATENT-APPL-SN-140439 US-PATENT-CLASS-330-69 US-PATENT-CLASS-330-81 US-PATENT-3,872,395
c35 N75-15931	NASA-CASE-HFS-21761-1 US-PATENT-APPL-SN-337816 US-PATENT-CLASS-73-40 US-PATENT-CLASS-73-49.2 US-PATENT-CLASS-200-83N US-PATENT-3,859,845	c33 N75-19519	NASA-CASE-NPO-13125-1 US-PATENT-APPL-SN-319150 US-PATENT-CLASS-235-92DM US-PATENT-CLASS-235-92LG US-PATENT-CLASS-235-92R US-PATENT-CLASS-235-92T US-PATENT-CLASS-235-92VA US-PATENT-3,866,022
c35 N75-15932	NASA-CASE-HFS-21045-1 US-PATENT-APPL-SN-411572 US-PATENT-CLASS-73-1R US-PATENT-CLASS-73-379 US-PATENT-3,859,840	c33 N75-19520	NASA-CASE-ARC-10364-3 US-PATENT-APPL-SN-209618 US-PATENT-APPL-SN-462844 US-PATENT-CLASS-307-321 US-PATENT-CLASS-324-DIG.1 US-PATENT-CLASS-329-166 US-PATENT-CLASS-329-204 US-PATENT-CLASS-332-47 US-PATENT-3,869,676
c37 N75-15992	NASA-CASE-GSC-11577-1 US-PATENT-APPL-SN-322997 US-PATENT-CLASS-29-472.7 US-PATENT-CLASS-29-473.1 US-PATENT-CLASS-65-43 US-PATENT-CLASS-117-93.3 US-PATENT-CLASS-117-106A US-PATENT-CLASS-156-89 US-PATENT-CLASS-156-99 US-PATENT-3,859,714	c33 N75-19521	NASA-CASE-KSC-10736-1 US-PATENT-APPL-SN-348787 US-PATENT-CLASS-324-102 US-PATENT-CLASS-324-113 US-PATENT-3,869,667
c35 N75-16783	NASA-CASE-ARC-10637-1 US-PATENT-APPL-SN-352383 US-PATENT-CLASS-356-28 US-PATENT-3,860,342	c33 N75-19522	NASA-CASE-GSC-11844-1 US-PATENT-APPL-SN-452761 US-PATENT-CLASS-307-227 US-PATENT-CLASS-321-15 US-PATENT-CLASS-324-32 US-PATENT-3,869,659
c20 N75-18310	NASA-CASE-LEW-11694-1 US-PATENT-APPL-SN-352381 US-PATENT-CLASS-29-25.18 US-PATENT-CLASS-72-63 US-PATENT-3,864,797	c33 N75-19524	NASA-CASE-NPO-13374-1 US-PATENT-APPL-SN-449118 US-PATENT-CLASS-318-137 US-PATENT-CLASS-318-167 US-PATENT-CLASS-318-176 US-PATENT-CLASS-318-183 US-PATENT-3,867,677
c33 N75-18477	NASA-CASE-HFS-22129-1 US-PATENT-APPL-SN-370255 US-PATENT-CLASS-324-32 US-PATENT-CLASS-324-54 US-PATENT-3,866,114	c35 N75-19611	NASA-CASE-LAR-11071-1 US-PATENT-APPL-SN-334349 US-PATENT-CLASS-73-221 US-PATENT-CLASS-417-36 US-PATENT-CLASS-417-138 US-PATENT-CLASS-417-395 US-PATENT-3,864,060
c33 N75-18479	NASA-CASE-HSC-14129-1 US-PATENT-APPL-SN-362146 US-PATENT-CLASS-307-225 US-PATENT-CLASS-307-235R US-PATENT-CLASS-307-267 US-PATENT-CLASS-328-58 US-PATENT-CLASS-328-115 US-PATENT-CLASS-328-151 US-PATENT-3,869,624	c35 N75-19612	NASA-CASE-LAR-11237-1 US-PATENT-APPL-SN-402868 US-PATENT-CLASS-73-46 US-PATENT-CLASS-73-49.2 US-PATENT-CLASS-340-242 US-PATENT-3,864,960
c37 N75-18573	NASA-CASE-NPO-13253-1 US-PATENT-APPL-SN-395687 US-PATENT-CLASS-248-358R US-PATENT-3,863,881	c35 N75-19613	NASA-CASE-LAR-11207-1 US-PATENT-APPL-SN-385013 US-PATENT-CLASS-178-DIG.20 US-PATENT-CLASS-250-332 US-PATENT-CLASS-356-83 US-PATENT-CLASS-356-96 US-PATENT-CLASS-356-186 US-PATENT-CLASS-356-189 US-PATENT-3,869,212
c37 N75-18574	NASA-CASE-GSC-11079-1 US-PATENT-APPL-SN-100637 US-PATENT-CLASS-308-10 US-PATENT-3,865,442	c35 N75-19614	NASA-CASE-LAR-11173-1 US-PATENT-APPL-SN-354408 US-PATENT-CLASS-73-557
c18 N75-19329	NASA-CASE-HFS-22734-1 US-PATENT-APPL-SN-453232 US-PATENT-CLASS-244-162 US-PATENT-3,866,863		
c26 N75-19408	NASA-CASE-LEW-11696-2 US-PATENT-APPL-SN-298156 US-PATENT-APPL-SN-436315 US-PATENT-CLASS-29-194		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-332-2		US-PATENT-CLASS-324-57PS
	US-PATENT-3,868,856		US-PATENT-CLASS-324-77H
c35 N75-19615	NASA-CASE-NFS-22189-1		US-PATENT-CLASS-325-67
	US-PATENT-APPL-SN-405342		US-PATENT-3,875,500
	US-PATENT-CLASS-33-148D	c37 N75-21631	NASA-CASE-LEW-11274-1
	US-PATENT-CLASS-73-143		US-PATENT-APPL-SN-380630
	US-PATENT-3,864,953		US-PATENT-CLASS-277-27
c35 N75-19616	NASA-CASE-NFS-20932-1		US-PATENT-CLASS-277-40
	US-PATENT-APPL-SN-374441		US-PATENT-CLASS-277-134
	US-PATENT-CLASS-250-505		US-PATENT-3,874,677
	US-PATENT-CLASS-250-508	c39 N75-21671	NASA-CASE-HSC-12619-1
	US-PATENT-CLASS-250-510		US-PATENT-APPL-SN-555750
	US-PATENT-3,869,615	c35 N75-23910	NASA-CASE-NPO-13327-1
c35 N75-19627	NASA-CASE-NPO-13606-1		US-PATENT-APPL-SN-429437
	US-PATENT-APPL-SN-553210		US-PATENT-CLASS-247-171
c35 N75-19628	NASA-CASE-NPO-13614-1		US-PATENT-CLASS-250-203
	US-PATENT-APPL-SN-553209		US-PATENT-CLASS-250-211R
c36 N75-19652	NASA-CASE-NPO-13131-1		US-PATENT-3,875,404
	US-PATENT-APPL-SN-390468	c05 N75-24716	NASA-CASE-HSC-14339-1
	US-PATENT-CLASS-178-7.1		US-PATENT-APPL-SN-347953
	US-PATENT-CLASS-250-211R		US-PATENT-CLASS-128-2.06E
	US-PATENT-CLASS-250-578		US-PATENT-CLASS-128-DIG. 4
	US-PATENT-CLASS-315-169R		US-PATENT-CLASS-128-2.06B
	US-PATENT-CLASS-340-173LS		US-PATENT-3,882,846
	US-PATENT-3,865,975	c07 N75-24736	NASA-CASE-ARC-10754-1
c36 N75-19653	NASA-CASE-HQN-10844-1		US-PATENT-APPL-SN-398886
	US-PATENT-APPL-SN-412080		US-PATENT-CLASS-137-15.1
	US-PATENT-CLASS-356-106LR		US-PATENT-CLASS-244-53B
	US-PATENT-3,869,210		US-PATENT-3,883,095
c36 N75-19654	NASA-CASE-GSC-11746-1	c09 N75-24758	NASA-CASE-GSC-11127-1
	US-PATENT-APPL-SN-393528		US-PATENT-APPL-SN-401466
	US-PATENT-CLASS-331-94.5M		US-PATENT-CLASS-318-314
	US-PATENT-3,869,680		US-PATENT-CLASS-318-318
c36 N75-19655	NASA-CASE-IAR-11341-1		US-PATENT-CLASS-318-341
	US-PATENT-APPL-SN-367293		US-PATENT-3,883,785
	US-PATENT-CLASS-330-4.3	c12 N75-24774	NASA-CASE-NPO-13263-1
	US-PATENT-CLASS-331-94.5P		US-PATENT-APPL-SN-393523
	US-PATENT-3,868,591		US-PATENT-CLASS-73-505
c37 N75-19683	NASA-CASE-HSC-19095-1		US-PATENT-3,882,732
	US-PATENT-APPL-SN-415486	c14 N75-24794	NASA-CASE-NFS-21488-1
	US-PATENT-CLASS-219-137		US-PATENT-APPL-SN-359156
	US-PATENT-3,864,542		US-PATENT-CLASS-73-143
c37 N75-19684	NASA-CASE-NPO-13345-1		US-PATENT-3,882,719
	US-PATENT-APPL-SN-462705	c20 N75-24837	NASA-CASE-NPO-13303-1
	US-PATENT-CLASS-204-192		US-PATENT-APPL-SN-457295
	US-PATENT-CLASS-204-298		US-PATENT-CLASS-60-516
	US-PATENT-3,864,239		US-PATENT-CLASS-60-530
c37 N75-19685	NASA-CASE-NFS-21606-1		US-PATENT-CLASS-62-3
	US-PATENT-APPL-SN-356555		US-PATENT-CLASS-62-467
	US-PATENT-CLASS-292-DIG. 14		US-PATENT-CLASS-310-4
	US-PATENT-CLASS-292-108		US-PATENT-CLASS-310-10
	US-PATENT-CLASS-292-122		US-PATENT-CLASS-310-40
	US-PATENT-3,869,160		US-PATENT-CLASS-310-52
c37 N75-19686	NASA-CASE-NFS-19193-1		US-PATENT-CLASS-335-216
	US-PATENT-APPL-SN-461477		US-PATENT-3,875,435
	US-PATENT-CLASS-285-114	c32 N75-24981	NASA-CASE-GSC-11743-1
	US-PATENT-CLASS-285-226		US-PATENT-APPL-SN-370271
	US-PATENT-3,869,151		US-PATENT-CLASS-178-66R
c77 N75-20139	NASA-CASE-HSC-14143-1		US-PATENT-CLASS-325-30
	US-PATENT-APPL-SN-393526		US-PATENT-CLASS-325-60
	US-PATENT-CLASS-62-93		US-PATENT-3,878,464
	US-PATENT-CLASS-62-285	c32 N75-24982	NASA-CASE-NPO-13140-1
	US-PATENT-CLASS-62-288		US-PATENT-APPL-SN-374422
	US-PATENT-CLASS-62-289		US-PATENT-CLASS-343-56C
	US-PATENT-CLASS-62-290		US-PATENT-CLASS-343-100PE
	US-PATENT-CLASS-62-317		US-PATENT-3,883,872
	US-PATENT-CLASS-165-110	c33 N75-25040	NASA-CASE-GSC-11623-1
	US-PATENT-CLASS-165-111		US-PATENT-APPL-SN-389929
	US-PATENT-3,868,830		US-PATENT-CLASS-331-1A
c77 N75-20140	NASA-CASE-GSC-11752-1		US-PATENT-CLASS-331-18
	US-PATENT-APPL-SN-446569		US-PATENT-CLASS-331-25
	US-PATENT-CLASS-219-497		US-PATENT-3,883,817
	US-PATENT-CLASS-219-501	c33 N75-25041	NASA-CASE-ARC-10364-2
	US-PATENT-CLASS-219-505		US-PATENT-APPL-SN-209618
	US-PATENT-3,869,597		US-PATENT-APPL-SN-433968
c32 N75-21485	NASA-CASE-HSC-12607-1		US-PATENT-CLASS-307-321
	US-PATENT-APPL-SN-407323		US-PATENT-CLASS-324-DIG. 1
	US-PATENT-CLASS-178-DIG. 12		US-PATENT-CLASS-329-166
	US-PATENT-CLASS-358-36		US-PATENT-CLASS-329-204
	US-PATENT-3,875,584		US-PATENT-3,883,812
c32 N75-21486	NASA-CASE-HSC-14558-1	c35 N75-25122	NASA-CASE-NPO-10764-2
	US-PATENT-APPL-SN-428994		US-PATENT-APPL-SN-273519
	US-PATENT-CLASS-178-58A		US-PATENT-APPL-SN-836280
	US-PATENT-CLASS-178-79		US-PATENT-CLASS-73-356
	US-PATENT-3,875,332		US-PATENT-CLASS-116-114.5
c35 N75-21582	NASA-CASE-NFS-22671-1		US-PATENT-CLASS-117-72
	US-PATENT-APPL-SN-419831		US-PATENT-3,874,240
	US-PATENT-CLASS-178-69A	c35 N75-25123	NASA-CASE-NPO-13214-1
	US-PATENT-CLASS-235-181		NASA-CASE-NPO-13215-1

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-394149		US-PATENT-CLASS-315-367
	US-PATENT-CLASS-178-DIG. 29		US-PATENT-CLASS-315-369
	US-PATENT-CLASS-178-7.2		US-PATENT-CLASS-315-387
	US-PATENT-3,883,689		US-PATENT-3,889,155
c35 N75-25124	NASA-CASE-MFS-21704-1	c33 N75-26245	NASA-CASE-LAR-11352-1
	US-PATENT-APPL-SN-386793		US-PATENT-APPL-SN-459736
	US-PATENT-CLASS-350-3.5		US-PATENT-CLASS-23-254E
	US-PATENT-3,883,215		US-PATENT-CLASS-324-58.5A
c37 N75-25185	NASA-CASE-NPO-13360-1		US-PATENT-CLASS-324-58.5C
	US-PATENT-APPL-SN-401920		US-PATENT-3,889,182
	US-PATENT-CLASS-228-1	c33 N75-26246	NASA-CASE-KSC-10807-1
	US-PATENT-CLASS-251-333		US-PATENT-APPL-SN-461073
	US-PATENT-3,874,635		US-PATENT-CLASS-324-72
c37 N75-25186	NASA-CASE-MFS-22649-1		US-PATENT-3,889,185
	US-PATENT-APPL-SN-398901	c34 N75-26282	NASA-CASE-LAR-11110-1
	US-PATENT-CLASS-408-112		US-PATENT-APPL-SN-420424
	US-PATENT-CLASS-408-186		US-PATENT-CLASS-233-DIG. 1
	US-PATENT-CLASS-408-193		US-PATENT-CLASS-233-6
	US-PATENT-CLASS-408-195		US-PATENT-CLASS-233-20RP
	US-PATENT-3,877,833		US-PATENT-CLASS-233-25
c51 N75-25503	NASA-CASE-ARC-10722-1		US-PATENT-CLASS-233-46
	US-PATENT-APPL-SN-428995		US-PATENT-3,888,410
	US-PATENT-CLASS-47-1.2	c35 N75-26334	NASA-CASE-ARC-10344-2
	US-PATENT-CLASS-47-39		US-PATENT-APPL-SN-446564
	US-PATENT-CLASS-47-58		US-PATENT-CLASS-55-386
	US-PATENT-3,882,634		US-PATENT-3,887,345
c74 N75-25706	NASA-CASE-HQN-10542-1	c37 N75-26371	NASA-CASE-GSC-10984-1
	US-PATENT-APPL-SN-163151		US-PATENT-APPL-SN-127480
	US-PATENT-CLASS-178-DIG. 25		US-PATENT-CLASS-29-182.2
	US-PATENT-CLASS-250-566		US-PATENT-CLASS-29-182.5
	US-PATENT-CLASS-350-311		US-PATENT-CLASS-29-420.5
	US-PATENT-3,883,436		US-PATENT-CLASS-65-3
c76 N75-25730	NASA-CASE-GSC-11425-2		US-PATENT-CLASS-75-DIG. 1
	US-PATENT-APPL-SN-206266		US-PATENT-CLASS-75-200
	US-PATENT-APPL-SN-394206		US-PATENT-CLASS-75-208R
	US-PATENT-CLASS-357-23		US-PATENT-CLASS-75-212
	US-PATENT-CLASS-357-29		US-PATENT-CLASS-75-214
	US-PATENT-CLASS-357-42		US-PATENT-CLASS-75-222
	US-PATENT-CLASS-357-52		US-PATENT-CLASS-117-126GH
	US-PATENT-CLASS-357-54		US-PATENT-CLASS-117-126R
	US-PATENT-CLASS-357-91		US-PATENT-CLASS-161-92
	US-PATENT-3,882,530		US-PATENT-CLASS-161-93
c05 N75-25914	NASA-CASE-LAR-11252-1	c37 N75-26372	US-PATENT-3,887,365
	US-PATENT-APPL-SN-367268		NASA-CASE-MFS-21931-1
	US-PATENT-CLASS-D12-76		US-PATENT-APPL-SN-464721
	US-PATENT-CLASS-244-13		US-PATENT-CLASS-250-359
	US-PATENT-CLASS-244-15		US-PATENT-CLASS-250-460
	US-PATENT-CLASS-244-42DA		US-PATENT-CLASS-250-492
	US-PATENT-CLASS-244-55		US-PATENT-3,889,122
	US-PATENT-3,884,432	c70 N75-26789	NASA-CASE-MFS-22758-1
c05 N75-25915	NASA-CASE-ARC-10519-2		US-PATENT-APPL-SN-581514
	US-PATENT-APPL-SN-452767	c18 N75-27040	NASA-CASE-HQ-02146
	US-PATENT-CLASS-280-150SB		US-PATENT-APPL-SN-290043
	US-PATENT-CLASS-297-385		US-PATENT-CLASS-52-71
	US-PATENT-CLASS-297-388		US-PATENT-3,206,897
	US-PATENT-CLASS-297-389	c18 N75-27041	NASA-CASE-HSC-14245-1
	US-PATENT-3,887,233		US-PATENT-APPL-SN-389916
c25 N75-26043	NASA-CASE-LAR-11144-1		US-PATENT-CLASS-214-1CM
	US-PATENT-APPL-SN-426405		US-PATENT-3,893,573
	US-PATENT-CLASS-117-106A	c26 N75-27125	NASA-CASE-KMP-05868
	US-PATENT-CLASS-117-107.2		US-PATENT-APPL-SN-512509
	US-PATENT-CLASS-117-201		US-PATENT-CLASS-260-29.6
	US-PATENT-CLASS-118-48		US-PATENT-3,475,442
	US-PATENT-CLASS-118-49.1	c26 N75-27126	NASA-CASE-KMP-06053
	US-PATENT-CLASS-148-175		US-PATENT-APPL-SN-542192
	US-PATENT-CLASS-252-62.3GA		US-PATENT-CLASS-75-173
	US-PATENT-3,888,705		US-PATENT-3,411,900
c32 N75-26194	NASA-CASE-NPO-13217-1	c26 N75-27127	NASA-CASE-KMP-03878
	US-PATENT-APPL-SN-362145		US-PATENT-APPL-SN-488745
	US-PATENT-CLASS-343-105R		US-PATENT-CLASS-75-173
	US-PATENT-CLASS-343-112D		US-PATENT-3,373,016
	US-PATENT-3,889,264	c27 N75-27160	NASA-CASE-MFS-22324-1
c32 N75-26195	NASA-CASE-NPO-13321-1		US-PATENT-APPL-SN-350250
	US-PATENT-APPL-SN-455163		US-PATENT-CLASS-106-48
	US-PATENT-CLASS-178-69.5R		US-PATENT-CLASS-106-54
	US-PATENT-CLASS-179-15BS		US-PATENT-CLASS-117-129
	US-PATENT-CLASS-325-4		US-PATENT-3,891,452
	US-PATENT-3,889,064	c33 N75-27249	NASA-CASE-KMS-02744
c33 N75-26243	NASA-CASE-GSC-11744-1		US-PATENT-APPL-SN-351950
	US-PATENT-APPL-SN-353162		US-PATENT-CLASS-200-129
	US-PATENT-CLASS-179-15BC		US-PATENT-3,281,558
	US-PATENT-CLASS-235-150.53	c33 N75-27250	NASA-CASE-KMP-01296
	US-PATENT-CLASS-235-181		US-PATENT-APPL-SN-127984
	US-PATENT-CLASS-324-83Q		US-PATENT-CLASS-315-30
	US-PATENT-CLASS-328-133		US-PATENT-3,189,784
	US-PATENT-3,875,394	c33 N75-27251	NASA-CASE-HQN-10069
c33 N75-26244	NASA-CASE-MFS-22208-1		US-PATENT-APPL-SN-739072
	US-PATENT-APPL-SN-448325		US-PATENT-CLASS-330-5
	US-PATENT-CLASS-315-10		US-PATENT-3,551,831

ACCESSION NUMBER INDEX

c33 N75-27252	NASA-CASE-IAR-11042-1 US-PATENT-APPL-SN-440916 US-PATENT-CLASS-204-242 US-PATENT-CLASS-204-267 US-PATENT-CLASS-204-279 US-PATENT-CLASS-204-286 US-PATENT-CLASS-204-290R US-PATENT-3,891,533	US-PATENT-CLASS-23-254E US-PATENT-CLASS-23-255E US-PATENT-CLASS-73-23 US-PATENT-CLASS-311-37 US-PATENT-CLASS-331-65 US-PATENT-3,895,912
c35 N75-27328	NASA-CASE-MPS-22537-1 US-PATENT-APPL-SN-387266 US-PATENT-CLASS-350-3.5 US-PATENT-3,888,561	NASA-CASE-ARC-10806-1 US-PATENT-APPL-SN-478802 US-PATENT-CLASS-73-178R US-PATENT-3,895,521
c35 N75-27329	NASA-CASE-XMF-05882 US-PATENT-APPL-SN-533650 US-PATENT-CLASS-250-83.3 US-PATENT-3,854,766	NASA-CASE-XMS-05731 US-PATENT-APPL-SN-441279 US-PATENT-CLASS-73-117.4 US-PATENT-3,375,712
c35 N75-27330	NASA-CASE-LAR-11354-1 US-PATENT-APPL-SN-409990 US-PATENT-CLASS-195-103.5R US-PATENT-CLASS-195-120 US-PATENT-CLASS-195-127 US-PATENT-CLASS-195-141 US-PATENT-3,884,765	NASA-CASE-XLR-10717 US-PATENT-APPL-SN-844243 US-PATENT-CLASS-315-111 US-PATENT-3,004,189
c35 N75-27331	NASA-CASE-GSC-11829-1 US-PATENT-APPL-SN-502136 US-PATENT-CLASS-250-385 US-PATENT-3,891,851	NASA-CASE-ERC-10419-1 US-PATENT-APPL-SN-219722 US-PATENT-CLASS-343-6.5R US-PATENT-CLASS-343-112CA US-PATENT-3,900,847
c36 N75-27364	NASA-CASE-XLR-2529-2 US-PATENT-APPL-SN-848403 US-PATENT-CLASS-240-41B US-PATENT-CLASS-330-4.3 US-PATENT-CLASS-331-94.5A US-PATENT-3,894,289	NASA-CASE-MPS-22356-1 US-PATENT-APPL-SN-489008 US-PATENT-CLASS-260-78TF US-PATENT-CLASS-260-346.3 US-PATENT-CLASS-260-520 US-PATENT-3,899,517
c37 N75-27376	NASA-CASE-XMS-01330 US-PATENT-APPL-SN-153624 US-PATENT-CLASS-322565 US-PATENT-CLASS-219-125 US-PATENT-3,275,794	NASA-CASE-LAR-10337-1 US-PATENT-APPL-SN-424038 US-PATENT-CLASS-29-610 US-PATENT-CLASS-29-613 US-PATENT-CLASS-338-13 US-PATENT-CLASS-338-283 US-PATENT-3,898,730
c45 N75-27585	NASA-CASE-NPO-13231-1 US-PATENT-APPL-SN-428993 US-PATENT-CLASS-250-343 US-PATENT-CLASS-250-345 US-PATENT-CLASS-250-432 US-PATENT-3,891,848	NASA-CASE-MPS-22342-1 US-PATENT-APPL-SN-361666 US-PATENT-CLASS-330-13 US-PATENT-CLASS-330-18 US-PATENT-CLASS-330-40 US-PATENT-CLASS-330-63 US-PATENT-3,898,578
c54 N75-27758	NASA-CASE-NPO-13386-1 US-PATENT-APPL-SN-475336 US-PATENT-CLASS-214-1B US-PATENT-CLASS-214-1CH US-PATENT-CLASS-318-640 US-PATENT-3,888,362	NASA-CASE-MPS-21616-1 US-PATENT-APPL-SN-464723 US-PATENT-CLASS-330-24 US-PATENT-CLASS-330-207A US-PATENT-3,899,745
c54 N75-27759	NASA-CASE-MSC-13601-2 US-PATENT-APPL-SN-395495 US-PATENT-CLASS-351-38 US-PATENT-3,891,311	NASA-CASE-NPO-13504-1 US-PATENT-APPL-SN-483852 US-PATENT-CLASS-33-96 US-PATENT-CLASS-333-21B US-PATENT-CLASS-333-83BT US-PATENT-CLASS-333-98R US-PATENT-3,902,143
c54 N75-27760	NASA-CASE-ARC-10753-1 US-PATENT-APPL-SN-427395 US-PATENT-CLASS-74-4711Y US-PATENT-CLASS-128-2.05Z US-PATENT-CLASS-128-2V US-PATENT-CLASS-128-24A US-PATENT-3,893,449	NASA-CASE-RSC-10782-1 US-PATENT-APPL-SN-400867 US-PATENT-CLASS-178-DIG.1 US-PATENT-CLASS-178-6.8 US-PATENT-3,900,705
c54 N75-27761	NASA-CASE-NPO-13313-1 US-PATENT-APPL-SN-449153 US-PATENT-CLASS-55-DIG.35 US-PATENT-CLASS-128-145.8 US-PATENT-3,893,458	NASA-CASE-ARC-10802-1 US-PATENT-APPL-SN-484208 US-PATENT-CLASS-205-343 US-PATENT-CLASS-250-351 US-PATENT-CLASS-250-373 US-PATENT-CLASS-356-51 US-PATENT-3,899,252
c24 N75-28135	NASA-CASE-MPS-21077-1 US-PATENT-APPL-SN-127481 US-PATENT-CLASS-29-419 US-PATENT-CLASS-228-190 US-PATENT-CLASS-228-193 US-PATENT-3,894,677	NASA-CASE-LEW-12078-1 US-PATENT-APPL-SN-447124 US-PATENT-CLASS-73-194H US-PATENT-CLASS-73-195 US-PATENT-3,898,882
c25 N75-29192	NASA-CASE-HQN-10462 US-PATENT-APPL-SN-773530 US-PATENT-CLASS-118-43 US-PATENT-3,603,285	NASA-CASE-MSC-12531-1 US-PATENT-APPL-SN-354612 US-PATENT-CLASS-307-204 US-PATENT-CLASS-307-211 US-PATENT-CLASS-307-219 US-PATENT-CLASS-328-61 US-PATENT-CLASS-328-62 US-PATENT-3,900,741
c26 N75-29236	NASA-CASE-XNP-01311 US-PATENT-APPL-SN-430496 US-PATENT-CLASS-148-127 US-PATENT-3,390,023	NASA-CASE-NPO-13308-1 US-PATENT-APPL-SN-455165 US-PATENT-CLASS-310-4 US-PATENT-CLASS-331-DIG.1 US-PATENT-3,899,696
c27 N75-29263	NASA-CASE-LAR-11397-1 US-PATENT-APPL-SN-532784	NASA-CASE-LEW-11076-3 US-PATENT-APPL-SN-405346 US-PATENT-CLASS-308-73 US-PATENT-CLASS-308-121
c33 N75-29318	NASA-CASE-ARC-10266-1 US-PATENT-APPL-SN-453241 US-PATENT-CLASS-315-111 US-PATENT-3,469,143	
c35 N75-29380	NASA-CASE-MPS-22060-1 US-PATENT-APPL-SN-521603	
c35 N75-29381		
c35 N75-29382		
c37 N75-29426		
c03 N75-30132		
c23 N75-30256		
c24 N75-30260		
c33 N75-30428		
c33 N75-30429		
c33 N75-30430		
c33 N75-30431		
c35 N75-30502		
c35 N75-30503		
c35 N75-30504		
c36 N75-30524		
c37 N75-30562		

ACCESSION NUMBER INDEX

c73 N75-30876	US-PATENT-3,899,224	c35 N75-33367	US-PATENT-3,907,686
	NASA-CASE-LEW-11227-1		NASA-CASE-LAR-10629-1
	US-PATENT-APPL-SN-146939		US-PATENT-APPL-SN-402867
	US-PATENT-CLASS-244-1SS		US-PATENT-CLASS-73-12
	US-PATENT-CLASS-250-493		US-PATENT-CLASS-73-170R
c33 N75-31329	US-PATENT-CLASS-250-496	c35 N75-33368	US-PATENT-CLASS-73-432PS
	US-PATENT-3,899,680		US-PATENT-CLASS-116-114AH
	NASA-CASE-NPO-13423-1		US-PATENT-3,896,758
	US-PATENT-APPL-SN-470429		NASA-CASE-LAR-11326-1
	US-PATENT-CLASS-73-88.5		US-PATENT-APPL-SN-491416
c33 N75-31330	US-PATENT-CLASS-128-2S	c35 N75-33369	US-PATENT-CLASS-195-103.5R
	US-PATENT-CLASS-338-2		US-PATENT-3,907,646
	US-PATENT-3,905,356		NASA-CASE-LAR-11263-1
	NASA-CASE-NPO-13426-1		US-PATENT-APPL-SN-472775
	US-PATENT-APPL-SN-45053		US-PATENT-CLASS-73-141A
c33 N75-31331	US-PATENT-CLASS-307-225R	c37 N75-33395	US-PATENT-3,906,788
	US-PATENT-CLASS-328-41		NASA-CASE-MPS-22283-1
	US-PATENT-3,906,374		US-PATENT-APPL-SN-387095
	NASA-CASE-NPO-11156-2		US-PATENT-CLASS-29-26A
	US-PATENT-APPL-SN-174684		US-PATENT-CLASS-279-1B
c33 N75-31332	US-PATENT-CLASS-307-238	c52 N75-33640	US-PATENT-CLASS-279-89
	US-PATENT-CLASS-340-173CA		US-PATENT-CLASS-279-107
	US-PATENT-CLASS-357-7		US-PATENT-CLASS-294-86.33
	US-PATENT-CLASS-357-24		US-PATENT-CLASS-294-116
	US-PATENT-3,906,296		US-PATENT-3,907,312
c36 N75-31426	NASA-CASE-NPO-13348-1	c15 N76-14158	NASA-CASE-LEW-12051-1
	US-PATENT-APPL-SN-452770		US-PATENT-APPL-SN-397478
	US-PATENT-CLASS-250-238		US-PATENT-CLASS-128-230
	US-PATENT-CLASS-250-370		US-PATENT-CLASS-128-305
	US-PATENT-CLASS-357-5		US-PATENT-3,906,954
c36 N75-31427	US-PATENT-3,906,231	c18 N76-14186	NASA-CASE-LAR-11051-1
	NASA-CASE-ARC-10370-1		US-PATENT-APPL-SN-384773
	US-PATENT-APPL-SN-137391		US-PATENT-CLASS-74-5.7
	US-PATENT-CLASS-331-94.5G		US-PATENT-CLASS-244-3.21
	US-PATENT-CLASS-331-94.5P		US-PATENT-CLASS-244-165
c37 N75-31446	US-PATENT-3,906,397	c20 N76-14190	US-PATENT-3,915,416
	NASA-CASE-NPO-13175-1		NASA-CASE-MSC-12559-1
	US-PATENT-APPL-SN-374423		US-PATENT-APPL-SN-370582
	US-PATENT-CLASS-331-94.5C		US-PATENT-CLASS-33-286
	US-PATENT-CLASS-350-96WG		US-PATENT-CLASS-35-12
c39 N75-31479	US-PATENT-CLASS-350-161	c20 N76-14191	US-PATENT-CLASS-178-DIG.20
	US-PATENT-3,906,393		US-PATENT-CLASS-244-161
	NASA-CASE-LEW-11925-1		US-PATENT-CLASS-356-153
	US-PATENT-APPL-SN-450505		US-PATENT-3,910,533
	US-PATENT-CLASS-308-191	c24 N76-14203	NASA-CASE-LEW-11593-1
c36 N75-32441	US-PATENT-CLASS-308-195		US-PATENT-APPL-SN-363691
	US-PATENT-CLASS-308-201		US-PATENT-CLASS-60-39.23
	US-PATENT-3,905,660		US-PATENT-CLASS-60-39.29
	NASA-CASE-LAR-11181-1		US-PATENT-CLASS-60-39.74R
	US-PATENT-APPL-SN-571816		US-PATENT-3,910,035
c37 N75-32465	NASA-CASE-NPO-13449-1	c24 N76-14204	NASA-CASE-LEW-11118-2
	US-PATENT-APPL-SN-420813		US-PATENT-APPL-SN-436316
	US-PATENT-CLASS-310-11		US-PATENT-CLASS-60-265
	US-PATENT-CLASS-330-4.3		US-PATENT-CLASS-60-267
	US-PATENT-CLASS-331-94.5PE		US-PATENT-CLASS-239-127.3
c34 N75-33342	US-PATENT-CLASS-331-94-5G	c27 N76-14264	US-PATENT-3,910,039
	US-PATENT-3,906,398		NASA-CASE-NPO-12122-1
	NASA-CASE-ARC-10907-1		US-PATENT-APPL-SN-401921
	US-PATENT-APPL-SN-619986		US-PATENT-CLASS-149-36
	NASA-CASE-MPS-21628-1		US-PATENT-CLASS-423-407
c24 N75-33181	US-PATENT-APPL-SN-421702	c31 N76-14284	US-PATENT-3,919,014
	US-PATENT-CLASS-60-641		NASA-CASE-MSC-12568-1
	US-PATENT-CLASS-60-659		US-PATENT-APPL-SN-325784
	US-PATENT-CLASS-126-271		US-PATENT-CLASS-136-146
	US-PATENT-CLASS-165-105		US-PATENT-CLASS-136-148
c34 N75-33342	US-PATENT-CLASS-244-173	c32 N76-14321	US-PATENT-CLASS-162-102
	US-PATENT-3,903,699		US-PATENT-CLASS-162-153
	NASA-CASE-LEW-11484-1		US-PATENT-CLASS-162-222
	US-PATENT-APPL-SN-356554		US-PATENT-CLASS-162-228
	US-PATENT-CLASS-29-DIG.24		US-PATENT-3,910,814
c34 N75-33342	US-PATENT-CLASS-29-DIG.39	c32 N76-14321	NASA-CASE-MSC-14182-1
	US-PATENT-CLASS-29-527.2		US-PATENT-APPL-SN-419748
	US-PATENT-CLASS-72-46		US-PATENT-CLASS-403-28
	US-PATENT-CLASS-117-8.5		US-PATENT-CLASS-403-179
	US-PATENT-CLASS-117-38		US-PATENT-CLASS-428-77
c34 N75-33342	US-PATENT-CLASS-117-46PS	c32 N76-14321	US-PATENT-CLASS-428-109
	US-PATENT-CLASS-117-105.2		US-PATENT-CLASS-428-212
	US-PATENT-3,906,769		US-PATENT-CLASS-428-214
	NASA-CASE-MSC-14273-1		US-PATENT-CLASS-428-416
	US-PATENT-APPL-SN-385522		US-PATENT-CLASS-428-447
c34 N75-33342	US-PATENT-CLASS-210-82	c32 N76-14321	US-PATENT-3,920,339
	US-PATENT-CLASS-210-234		NASA-CASE-NPO-13435-1
	US-PATENT-CLASS-210-259		US-PATENT-APPL-SN-478803
	US-PATENT-CLASS-210-304		US-PATENT-CLASS-62-49
	US-PATENT-CLASS-210-333		US-PATENT-CLASS-62-129
c34 N75-33342	US-PATENT-CLASS-210-340	c32 N76-14321	US-PATENT-CLASS-73-295
	US-PATENT-CLASS-210-411		US-PATENT-3,914,950
	US-PATENT-CLASS-210-425		NASA-CASE-LAR-11021-1
	US-PATENT-CLASS-210-512		US-PATENT-APPL-SN-453115

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-325-304	c44 N76-14601	NASA-CASE-MPS-22749-1
	US-PATENT-CLASS-325-306		US-PATENT-APPL-SN-483857
	US-PATENT-CLASS-325-372		US-PATENT-CLASS-136-90
	US-PATENT-CLASS-328-145		US-PATENT-CLASS-136-114
	US-PATENT-CLASS-343-176		US-PATENT-CLASS-136-162
	US-PATENT-3,916,316		US-PATENT-CLASS-136-182
c33 N76-14371	NASA-CASE-KSC-10834-1		US-PATENT-3,912,541
	US-PATENT-APPL-SN-536535	c44 N76-14602	NASA-CASE-NPO-13497-1
	US-PATENT-CLASS-178-69.5R		US-PATENT-APPL-SN-526448
	US-PATENT-CLASS-178-88		US-PATENT-CLASS-126-271
	US-PATENT-CLASS-328-63		US-PATENT-CLASS-237-1A
	US-PATENT-CLASS-328-190		US-PATENT-CLASS-350-211
	US-PATENT-3,916,084		US-PATENT-3,915,148
c33 N76-14372	NASA-CASE-LAR-10970-1	c52 N76-14757	NASA-CASE-MSC-14180-1
	US-PATENT-APPL-SN-527790		US-PATENT-APPL-SN-354406
	US-PATENT-CLASS-343-770		US-PATENT-CLASS-128-2.1A
	US-PATENT-CLASS-343-797		US-PATENT-CLASS-128-2.06R
	US-PATENT-CLASS-343-846		US-PATENT-CLASS-128-2H
	US-PATENT-3,919,710		US-PATENT-3,910,257
c33 N76-14373	NASA-CASE-NPO-13451-1	c54 N76-14804	NASA-CASE-MSC-14640-1
	US-PATENT-APPL-SN-501012		US-PATENT-APPL-SN-526449
	US-PATENT-CLASS-235-92SR		US-PATENT-CLASS-73-421R
	US-PATENT-CLASS-307-221R		US-PATENT-CLASS-128-2F
	US-PATENT-CLASS-328-37		US-PATENT-3,915,012
	US-PATENT-3,911,330	c60 N76-14818	NASA-CASE-NPO-13422-1
c35 N76-14429	NASA-CASE-LAR-11552-1		US-PATENT-APPL-SN-521601
	US-PATENT-APPL-SN-518685		US-PATENT-CLASS-340-147C
	US-PATENT-CLASS-73-182		US-PATENT-CLASS-340-147R
	US-PATENT-CLASS-73-212		US-PATENT-3,916,380
	US-PATENT-3,914,997	c75 N76-14931	NASA-CASE-MPS-22287-1
c35 N76-14430	NASA-CASE-NPO-13170-1		US-PATENT-APPL-SN-438147
	US-PATENT-APPL-SN-382261		US-PATENT-CLASS-73-12
	US-PATENT-CLASS-73-88.5R		US-PATENT-CLASS-89-8
	US-PATENT-CLASS-338-6		US-PATENT-CLASS-315-111.6
	US-PATENT-3,914,991		US-PATENT-3,916,761
c35 N76-14431	NASA-CASE-LEW-11915-1	c12 N76-15189	NASA-CASE-MSC-12611-1
	US-PATENT-APPL-SN-474744		US-PATENT-APPL-SN-446560
	US-PATENT-CLASS-60-39.29		US-PATENT-CLASS-350-288
	US-PATENT-CLASS-137-15.2		US-PATENT-CLASS-350-293
	US-PATENT-CLASS-235-151.3R		US-PATENT-CLASS-427-162
	US-PATENT-3,911,260		US-PATENT-CLASS-427-250
c35 N76-14434	JPL-CASE-13756		US-PATENT-3,927,227
	NASA-CASE-NPO-13756-1	c23 N76-15268	NASA-CASE-MPS-22355-1
	US-PATENT-APPL-SN-641801		US-PATENT-APPL-SN-487852
c36 N76-14447	NASA-CASE-ARC-10642-1		US-PATENT-CLASS-260-32.6N
	US-PATENT-APPL-SN-446562		US-PATENT-CLASS-260-32.8N
	US-PATENT-CLASS-356-28		US-PATENT-CLASS-260-47CP
	US-PATENT-CLASS-356-106R		US-PATENT-CLASS-260-78TF
	US-PATENT-3,915,572		US-PATENT-CLASS-260-346.3
c37 N76-14460	NASA-CASE-MPS-19194-1		US-PATENT-CLASS-260-571
	US-PATENT-APPL-SN-483850		US-PATENT-3,925,312
	US-PATENT-CLASS-285-226	c27 N76-15310	NASA-CASE-ARC-10714-1
	US-PATENT-CLASS-285-265		US-PATENT-APPL-SN-398885
	US-PATENT-3,915,482		US-PATENT-CLASS-260-2.5AK
c37 N76-14461	NASA-CASE-LEW-11694-2		US-PATENT-CLASS-427-196
	US-PATENT-APPL-SN-352381		US-PATENT-CLASS-427-426
	US-PATENT-APPL-SN-462903		US-PATENT-CLASS-428-303
	US-PATENT-CLASS-29-421		US-PATENT-3,916,060
	US-PATENT-CLASS-72-54	c27 N76-15311	NASA-CASE-NPO-13120-1
	US-PATENT-CLASS-72-63		US-PATENT-APPL-SN-348422
	US-PATENT-CLASS-72-363		US-PATENT-CLASS-29-182.5
	US-PATENT-3,914,969		US-PATENT-3,926,567
c37 N76-14463	NASA-CASE-MPS-22323-1	c27 N76-15314	NASA-CASE-MSC-14795-1
	US-PATENT-APPL-SN-474745		US-PATENT-APPL-SN-640806
	US-PATENT-CLASS-137-515.3		NASA-CASE-GSC-11968-1
	US-PATENT-CLASS-137-550	c32 N76-15329	US-PATENT-APPL-SN-512825
	US-PATENT-CLASS-210-429		US-PATENT-CLASS-343-779
	US-PATENT-CLASS-251-149.6		US-PATENT-CLASS-343-837
	US-PATENT-3,910,307		US-PATENT-CLASS-343-876
c44 N76-14595	NASA-CASE-MPS-22562-1		US-PATENT-3,927,408
	US-PATENT-APPL-SN-458484	c32 N76-15330	NASA-CASE-LAR-11112-1
	US-PATENT-CLASS-29-194		US-PATENT-APPL-SN-491419
	US-PATENT-CLASS-29-195		US-PATENT-CLASS-343-786
	US-PATENT-CLASS-29-197		US-PATENT-3,924,237
	US-PATENT-CLASS-126-270	c33 N76-15373	NASA-CASE-LEW-11938-1
	US-PATENT-CLASS-136-206		US-PATENT-APPL-SN-544611
	US-PATENT-CLASS-204-32R		US-PATENT-CLASS-317-258
	US-PATENT-CLASS-204-33		US-PATENT-CLASS-317-261
	US-PATENT-CLASS-204-38A		US-PATENT-3,924,164
	US-PATENT-CLASS-204-40	c35 N76-15431	NASA-CASE-MSC-13802-2
	US-PATENT-CLASS-204-42		US-PATENT-APPL-SN-189438
	US-PATENT-CLASS-204-49		US-PATENT-CLASS-250-251
	US-PATENT-3,920,413		US-PATENT-CLASS-250-287
c44 N76-14600	NASA-CASE-LEW-11065-2		US-PATENT-CLASS-250-423
	US-PATENT-APPL-SN-154930		US-PATENT-3,916,187
	US-PATENT-APPL-SN-371322	c35 N76-15432	NASA-CASE-LAR-11435-1
	US-PATENT-CLASS-29-572		US-PATENT-APPL-SN-522556
	US-PATENT-CLASS-136-89		US-PATENT-CLASS-73-1R
	US-PATENT-3,912,540		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-310-8.2		US-PATENT-APPL-SN-428994
	US-PATENT-3,924,444		US-PATENT-APPL-SN-464720
c35 N76-15433	NASA-CASE-GSC-11892-1		US-PATENT-CLASS-178-69C
	US-PATENT-APPL-SN-502135		US-PATENT-CLASS-178-88
	US-PATENT-CLASS-250-336		US-PATENT-CLASS-325-321
	US-PATENT-CLASS-250-385		US-PATENT-3,924,068
	US-PATENT-CLASS-250-489	c33 N76-16331	NASA-CASE-HSC-18649-1
	US-PATENT-3,927,324		US-PATENT-APPL-SN-505819
c35 N76-15434	NASA-CASE-LEW-11072-2		US-PATENT-CLASS-324-79D
	US-PATENT-APPL-SN-104885		US-PATENT-CLASS-328-134
	US-PATENT-APPL-SN-254323		US-PATENT-3,924,183
	US-PATENT-CLASS-136-211	c33 N76-16332	NASA-CASE-GSC-11849-1
	US-PATENT-CLASS-136-212		US-PATENT-APPL-SN-470428
	US-PATENT-CLASS-136-225		US-PATENT-CLASS-174-145
	US-PATENT-3,729,383		US-PATENT-CLASS-174-148
	US-PATENT-3,925,104		US-PATENT-CLASS-339-143C
c35 N76-15435	NASA-CASE-NPO-13506-1		US-PATENT-CLASS-339-198R
	US-PATENT-APPL-SN-483851		US-PATENT-CLASS-339-242
	US-PATENT-CLASS-343-909		US-PATENT-CLASS-339-275R
	US-PATENT-3,924,239		US-PATENT-3,931,456
c35 N76-15436	NASA-CASE-GSC-11895-1	c35 N76-16390	NASA-CASE-NPO-13388-1
	US-PATENT-APPL-SN-511887		US-PATENT-APPL-SN-522552
	US-PATENT-CLASS-331-3		US-PATENT-CLASS-324-43R
	US-PATENT-CLASS-331-94		US-PATENT-3,924,176
	US-PATENT-3,924,200	c35 N76-16391	NASA-CASE-NPO-10166-2
c37 N76-15457	NASA-CASE-HFS-22707-1		US-PATENT-APPL-SN-192803
	US-PATENT-APPL-SN-535410		US-PATENT-APPL-SN-668116
	US-PATENT-CLASS-74-384		US-PATENT-CLASS-360-9
	US-PATENT-CLASS-74-665B		US-PATENT-CLASS-360-10
	US-PATENT-CLASS-214-1R		US-PATENT-CLASS-360-35
	US-PATENT-3,922,930		US-PATENT-CLASS-360-101
c37 N76-15460	NASA-CASE-HFS-22022-1	c35 N76-16392	US-PATENT-3,924,267
	US-PATENT-APPL-SN-405341		NASA-CASE-LAR-11458-1
	US-PATENT-CLASS-214-1CM		US-PATENT-APPL-SN-504225
	US-PATENT-3,923,166		US-PATENT-CLASS-294-1R
c37 N76-15461	NASA-CASE-LEW-11076-4		US-PATENT-CLASS-294-19R
	US-PATENT-APPL-SN-238264		US-PATENT-3,929,364
	US-PATENT-APPL-SN-346483	c35 N76-16393	NASA-CASE-GSC-11889-1
	US-PATENT-APPL-SN-445178		US-PATENT-APPL-SN-502124
	US-PATENT-CLASS-308-9		US-PATENT-CLASS-250-281
	US-PATENT-CLASS-308-72		US-PATENT-CLASS-250-287
	US-PATENT-CLASS-308-73		US-PATENT-CLASS-250-288
	US-PATENT-CLASS-308-122		US-PATENT-CLASS-250-385
	US-PATENT-CLASS-308-160		US-PATENT-CLASS-250-423
	US-PATENT-3,926,482		US-PATENT-3,931,516
c54 N76-15792	NASA-CASE-HSC-12564-1	c37 N76-16446	NASA-CASE-NPO-13342-1
	US-PATENT-APPL-SN-641862		US-PATENT-APPL-SN-390049
c72 N76-15860	NASA-CASE-LEW-11866-1	c44 N76-16612	NASA-CASE-HFS-22002-1
	US-PATENT-APPL-SN-500980		US-PATENT-APPL-SN-452769
	US-PATENT-CLASS-250-499		US-PATENT-CLASS-136-202
	US-PATENT-CLASS-250-500		US-PATENT-CLASS-136-210
	US-PATENT-3,924,137		US-PATENT-CLASS-165-105
c02 N76-16014	NASA-CASE-LAR-11575-1		US-PATENT-CLASS-310-4
	US-PATENT-APPL-SN-527727		US-PATENT-3,931,532
	US-PATENT-CLASS-244-139	c44 N76-16621	NASA-CASE-HSC-12669-1
	US-PATENT-3,930,628		US-PATENT-APPL-SN-645503
c27 N76-16228	NASA-CASE-NPO-12061-1	c18 N76-17185	NASA-CASE-HSC-12561-1
	US-PATENT-APPL-SN-45549		US-PATENT-APPL-SN-448323
	US-PATENT-CLASS-260-92.1		US-PATENT-CLASS-244-162
	US-PATENT-CLASS-260-879		US-PATENT-CLASS-244-172
	US-PATENT-CLASS-260-900		US-PATENT-3,929,306
	US-PATENT-3,931,132	c34 N76-17317	NASA-CASE-LAR-10799-2
c27 N76-16229	NASA-CASE-LEW-11179-1		US-PATENT-APPL-SN-301419
	US-PATENT-APPL-SN-357312		US-PATENT-APPL-SN-419319
	US-PATENT-CLASS-29-195A		US-PATENT-CLASS-165-105
	US-PATENT-CLASS-427-203		US-PATENT-CLASS-165-106
	US-PATENT-CLASS-427-204		US-PATENT-CLASS-237-60
	US-PATENT-CLASS-427-205		US-PATENT-CLASS-244-117A
	US-PATENT-CLASS-427-270		US-PATENT-CLASS-244-135R
	US-PATENT-CLASS-427-275		US-PATENT-CLASS-417-209
	US-PATENT-CLASS-427-287		US-PATENT-3,929,305
	US-PATENT-CLASS-428-450	c45 N76-17656	NASA-CASE-LAR-11675-1
	US-PATENT-CLASS-428-457		US-PATENT-APPL-SN-557448
	US-PATENT-CLASS-428-469		US-PATENT-CLASS-178-DIG.1
	US-PATENT-CLASS-428-539		US-PATENT-CLASS-178-DIG.8
	US-PATENT-3,931,447		US-PATENT-CLASS-178-6.8
c27 N76-16230	NASA-CASE-ARC-10813-1		US-PATENT-CLASS-250-373
	US-PATENT-APPL-SN-437556		US-PATENT-CLASS-340-237S
	US-PATENT-CLASS-264-331		US-PATENT-CLASS-356-207
	US-PATENT-CLASS-428-412		US-PATENT-3,931,462
	US-PATENT-CLASS-428-413	c75 N76-17951	NASA-CASE-HFS-22145-2
	US-PATENT-CLASS-428-447		US-PATENT-APPL-SN-367606
	US-PATENT-CLASS-428-911		US-PATENT-APPL-SN-500982
	US-PATENT-CLASS-428-920		US-PATENT-CLASS-89-8
	US-PATENT-CLASS-428-921		US-PATENT-CLASS-124-1
	US-PATENT-3,928,708		US-PATENT-CLASS-124-11R
c31 N76-16245	NASA-CASE-HSC-19523-1		US-PATENT-3,929,119
	US-PATENT-APPL-SN-643895	c07 N76-18117	NASA-CASE-LAR-11674-1
c32 N76-16249	NASA-CASE-HSC-14557-1		US-PATENT-APPL-SN-331759

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-488616		US-PATENT-APPL-SN-450500
	US-PATENT-CLASS-181-33HC		US-PATENT-CLASS-228-193
	US-PATENT-CLASS-239-265.11		US-PATENT-CLASS-228-206
	US-PATENT-3,938,742		US-PATENT-CLASS-228-214
c07 N76-18131	NASA-CASE-ARC-10812-1		US-PATENT-CLASS-228-238
	US-PATENT-APPL-SN-657903		US-PATENT-3,937,387
c19 N76-18227	NASA-CASE-LAR-11889-1	c37 N76-18456	NASA-CASE-LAR-11228-1
	US-PATENT-APPL-SN-662182		US-PATENT-APPL-SN-450502
c25 N76-18245	NASA-CASE-NPO-13063-1		US-PATENT-CLASS-19-205
	US-PATENT-APPL-SN-227977		US-PATENT-CLASS-134-21
	US-PATENT-CLASS-23-230H		US-PATENT-CLASS-134-37
	US-PATENT-CLASS-23-230R		US-PATENT-CLASS-209-250
	US-PATENT-CLASS-23-232C		US-PATENT-CLASS-209-300
	US-PATENT-CLASS-23-253R		US-PATENT-CLASS-209-305
	US-PATENT-CLASS-23-254R		US-PATENT-3,937,661
	US-PATENT-CLASS-23-255R	c37 N76-18457	NASA-CASE-NPO-13402-1
	US-PATENT-CLASS-73-23.1		US-PATENT-APPL-SN-387342
	US-PATENT-CLASS-235-151.13		US-PATENT-CLASS-123-DIG.12
	US-PATENT-3,860,393		US-PATENT-CLASS-123-89A
c26 N76-18257	NASA-CASE-MPS-22907-1		US-PATENT-CLASS-123-119E
	US-PATENT-APPL-SN-518546		US-PATENT-CLASS-123-120
	US-PATENT-CLASS-324-34R		US-PATENT-CLASS-123-121
	US-PATENT-3,938,037		US-PATENT-3,906,913
c32 N76-18295	NASA-CASE-GSC-11862-1	c37 N76-18458	NASA-CASE-LAW-11860-1
	US-PATENT-APPL-SN-500979		US-PATENT-APPL-SN-527728
	US-PATENT-CLASS-343-837		US-PATENT-CLASS-204-157.1H
	US-PATENT-CLASS-343-840		US-PATENT-CLASS-250-527
	US-PATENT-CLASS-343-912		US-PATENT-3,939,048
	US-PATENT-CLASS-343-915	c37 N76-18459	NASA-CASE-GSC-11551-1
	US-PATENT-3,938,162		US-PATENT-APPL-SN-440917
c33 N76-18345	NASA-CASE-NPO-13385-1		US-PATENT-CLASS-308-10
	US-PATENT-APPL-SN-501011		US-PATENT-3,937,533
	US-PATENT-CLASS-340-347AD	c44 N76-18641	NASA-CASE-NPO-13237-1
	US-PATENT-3,938,188		US-PATENT-APPL-SN-378127
c33 N76-18353	NASA-CASE-GSC-11925-1		US-PATENT-CLASS-136-83R
	US-PATENT-APPL-SN-538983		US-PATENT-CLASS-136-86S
	US-PATENT-CLASS-360-26		US-PATENT-3,894,887
	US-PATENT-CLASS-360-51	c44 N76-18642	NASA-CASE-NPO-13464-1
	US-PATENT-3,938,182		US-PATENT-APPL-SN-428444
c34 N76-18364	NASA-CASE-LAR-11570-1		US-PATENT-CLASS-23-281
	US-PATENT-APPL-SN-482967		US-PATENT-CLASS-48-63
	US-PATENT-CLASS-60-316		US-PATENT-CLASS-48-75
	US-PATENT-CLASS-244-23D		US-PATENT-CLASS-48-95
	US-PATENT-3,940,097		US-PATENT-CLASS-48-116
c34 N76-18374	NASA-CASE-MPS-22938-1		US-PATENT-CLASS-48-117
	US-PATENT-APPL-SN-542754		US-PATENT-CLASS-123-3
	US-PATENT-CLASS-250-335		US-PATENT-CLASS-423-650
	US-PATENT-3,940,621		US-PATENT-3,920,416
c35 N76-18400	NASA-CASE-LAR-10208-1	c44 N76-18643	NASA-CASE-NPO-11961-1
	US-PATENT-APPL-SN-483858		US-PATENT-APPL-SN-378126
	US-PATENT-CLASS-73-95		US-PATENT-CLASS-136-61P
	US-PATENT-CLASS-73-103		US-PATENT-CLASS-136-30
	US-PATENT-3,938,373		US-PATENT-CLASS-320-21
c35 N76-18401	NASA-CASE-NPO-13396-1		US-PATENT-CLASS-320-22
	US-PATENT-APPL-SN-563283		US-PATENT-3,912,999
	US-PATENT-CLASS-55-261	c60 N76-18800	NASA-CASE-NPO-13067-1
	US-PATENT-CLASS-73-28		US-PATENT-APPL-SN-274348
	US-PATENT-CLASS-73-421.5R		US-PATENT-CLASS-340-172.5
	US-PATENT-3,938,367		US-PATENT-3,829,839
c35 N76-18402	NASA-CASE-MPS-22517-1	c74 N76-18913	NASA-CASE-GSC-11877-1
	US-PATENT-APPL-SN-506804		US-PATENT-APPL-SN-482953
	US-PATENT-CLASS-350-3.5		US-PATENT-CLASS-235-184
	US-PATENT-3,937,555		US-PATENT-CLASS-250-199
c35 N76-18403	NASA-CASE-ARC-10322-1		US-PATENT-3,937,945
	US-PATENT-APPL-SN-484209	c24 N76-19234	NASA-CASE-GSC-11577-3
	US-PATENT-CLASS-23-254EF		US-PATENT-APPL-SN-645502
	US-PATENT-3,938,956	c33 N76-19338	NASA-CASE-NPO-13519-1
c36 N76-18427	NASA-CASE-NPO-11945-1		US-PATENT-APPL-SN-536761
	US-PATENT-APPL-SN-269450		US-PATENT-CLASS-33-155R
	US-PATENT-CLASS-331-94.5		US-PATENT-CLASS-33-174D
	US-PATENT-CLASS-332-7.51		US-PATENT-CLASS-73-88.5SD
	US-PATENT-CLASS-350-150		US-PATENT-CLASS-128-25
	US-PATENT-CLASS-350-160		US-PATENT-3,937,212
	US-PATENT-CLASS-423-352	c33 N76-19339	NASA-CASE-ARC-10810-1
	US-PATENT-CLASS-423-644		US-PATENT-APPL-SN-489009
	US-PATENT-3,806,834		US-PATENT-CLASS-204-195R
c36 N76-18428	NASA-CASE-NPO-13544-1		US-PATENT-CLASS-215-247
	US-PATENT-APPL-SN-533555		US-PATENT-CLASS-324-30B
	US-PATENT-CLASS-331-94.5C		US-PATENT-3,938,035
	US-PATENT-CLASS-350-96WG	c35 N76-19408	NASA-CASE-GSC-12032-2
	US-PATENT-3,939,439		US-PATENT-APPL-SN-578700
c37 N76-18454	NASA-CASE-MPS-23047-1	c37 N76-19436	NASA-CASE-MPS-20607-1
	US-PATENT-APPL-SN-521602		US-PATENT-APPL-SN-478800
	US-PATENT-CLASS-29-81D		US-PATENT-CLASS-222-145
	US-PATENT-CLASS-72-453		US-PATENT-CLASS-259-4AC
	US-PATENT-CLASS-73-399		US-PATENT-3,941,355
	US-PATENT-CLASS-173-132	c37 N76-19437	NASA-CASE-MSC-12615-1
	US-PATENT-3,937,055		US-PATENT-APPL-SN-491417
c37 N76-18455	NASA-CASE-MSC-14435-1		US-PATENT-CLASS-29-432

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-29-433		US-PATENT-CLASS-156-382
	US-PATENT-CLASS-29-526		US-PATENT-CLASS-156-556
	US-PATENT-CLASS-52-705		US-PATENT-CLASS-248-362
	US-PATENT-CLASS-52-758P		US-PATENT-CLASS-248-363
	US-PATENT-CLASS-244-117A		US-PATENT-CLASS-269-21
	US-PATENT-CLASS-244-163		US-PATENT-3,945,879
	US-PATENT-3,936,927		NASA-CASE-NPO-13474-1
c44 N76-19552	NASA-CASE-LEW-12363-1	c45 N76-21742	JS-PATENT-APPL-SN-521817
	US-PATENT-APPL-SN-665034		US-PATENT-CLASS-23-254P
c52 N76-19785	NASA-CASE-LAR-11667-1		US-PATENT-CLASS-250-574
	US-PATENT-APPL-SN-583487		US-PATENT-CLASS-356-37
	US-PATENT-CLASS-128-DIG. 20		US-PATENT-3,945,801
	US-PATENT-CLASS-128-26	c60 N76-21914	NASA-CASE-NPO-13139-1
	US-PATENT-3,937,215		US-PATENT-APPL-SN-393524
c66 N76-19888	NASA-CASE-MFS-22631-1		US-PATENT-CLASS-235-153AE
	US-PATENT-APPL-SN-531572		US-PATENT-CLASS-340-172.5
	US-PATENT-CLASS-340-38P		US-PATENT-3,950,729
	US-PATENT-CLASS-356-71	c02 N76-22154	NASA-CASE-LAR-10585-1
	US-PATENT-CLASS-356-162		US-PATENT-APPL-SN-197183
	US-PATENT-CLASS-356-167		US-PATENT-CLASS-244-35R
	US-PATENT-3,930,735		US-PATENT-CLASS-244-40R
c74 N76-19935	NASA-CASE-MFS-21672-1		US-PATENT-3,952,971
	US-PATENT-APPL-SN-354060	c17 N76-22245	NASA-CASE-GSC-11868-1
	US-PATENT-CLASS-356-123		US-PATENT-APPL-SN-565290
	US-PATENT-CLASS-356-124		US-PATENT-CLASS-178-69.5
	US-PATENT-3,938,892		US-PATENT-CLASS-328-155
c04 N76-20114	NASA-CASE-LAR-11387-1		US-PATENT-CLASS-340-147SY
	US-PATENT-APPL-SN-531647		US-PATENT-CLASS-340-207P
	US-PATENT-CLASS-33-356		US-PATENT-3,953,674
	US-PATENT-CLASS-75-178R	c19 N76-22284	NASA-CASE-MFS-22905-1
	US-PATENT-3,943,763		US-PATENT-APPL-SN-518545
c37 N76-20480	NASA-CASE-NPO-13059-1		US-PATENT-CLASS-188-1B
	NASA-CASE-NPO-13436-1		US-PATENT-CLASS-248-22
	US-PATENT-APPL-SN-513690		US-PATENT-CLASS-248-358R
	US-PATENT-CLASS-81-56		US-PATENT-3,952,980
	US-PATENT-CLASS-81-57.31	c20 N76-22296	NASA-CASE-MFS-19220-1
	US-PATENT-3,942,398		US-PATENT-APPL-SN-571821
c37 N76-20488	NASA-CASE-LEW-12119-1		US-PATENT-CLASS-89-1.801
	US-PATENT-APPL-SN-672219		US-PATENT-CLASS-254-93R
c74 N76-20958	NASA-CASE-ARC-10631-1		US-PATENT-CLASS-254-124
	US-PATENT-APPL-SN-514546		US-PATENT-3,952,998
	US-PATENT-CLASS-250-343	c24 N76-22309	NASA-CASE-LEW-11930-1
	US-PATENT-CLASS-250-573		US-PATENT-APPL-SN-513611
	US-PATENT-3,943,368		US-PATENT-CLASS-252-12
c76 N76-20994	NASA-CASE-NPO-13443-1		US-PATENT-3,953,343
	US-PATENT-APPL-SN-522551	c25 N76-22323	NASA-CASE-ARC-10760-1
	US-PATENT-CLASS-324-60C		US-PATENT-APPL-SN-526438
	US-PATENT-CLASS-324-158D		US-PATENT-CLASS-250-343
	US-PATENT-CLASS-324-158R		US-PATENT-CLASS-250-344
	US-PATENT-CLASS-324-158P		US-PATENT-CLASS-250-432R
	US-PATENT-3,943,442		US-PATENT-3,953,734
c17 N76-21250	NASA-CASE-HSC-12593-1	c27 N76-22376	NASA-CASE-ARC-10721-1
	US-PATENT-APPL-SN-419747		US-PATENT-APPL-SN-427775
	US-PATENT-CLASS-325-14		US-PATENT-CLASS-264-60
	US-PATENT-CLASS-343-100SA		US-PATENT-CLASS-264-63
	US-PATENT-CLASS-343-100ST		US-PATENT-CLASS-264-66
	US-PATENT-CLASS-343-112TC		US-PATENT-3,952,083
	US-PATENT-3,949,400	c27 N76-22377	NASA-CASE-HSC-14270-1
c20 N76-21275	NASA-CASE-MFS-21311-1		US-PATENT-APPL-SN-482104
	US-PATENT-APPL-SN-093359		US-PATENT-CLASS-106-54
	US-PATENT-CLASS-244-3.22		US-PATENT-CLASS-427-376
	US-PATENT-3,948,470		US-PATENT-CLASS-427-379
c20 N76-21276	NASA-CASE-LEW-11876-1		US-PATENT-CLASS-427-380
	US-PATENT-APPL-SN-542157		US-PATENT-CLASS-427-402
	US-PATENT-CLASS-29-25.18		US-PATENT-CLASS-428-332
	US-PATENT-3,947,933		US-PATENT-CLASS-428-428
c32 N76-21365	NASA-CASE-NPO-13568-1		US-PATENT-CLASS-428-450
	US-PATENT-APPL-SN-534265		US-PATENT-CLASS-428-538
	US-PATENT-CLASS-343-761		US-PATENT-CLASS-428-920
	US-PATENT-CLASS-343-781		US-PATENT-3,953,646
	US-PATENT-CLASS-343-786	c35 N76-22509	NASA-CASE-LAR-11434-1
	US-PATENT-3,949,404		US-PATENT-APPL-SN-464722
c32 N76-21366	NASA-CASE-MFS-22729-1		US-PATENT-CLASS-209-127R
	US-PATENT-APPL-SN-533608		US-PATENT-CLASS-317-246
	US-PATENT-CLASS-235-156		US-PATENT-CLASS-324-61R
	US-PATENT-CLASS-325-42		US-PATENT-CLASS-324-71CP
	US-PATENT-CLASS-333-18		US-PATENT-3,953,792
	US-PATENT-3,949,206	c37 N76-22540	NASA-CASE-MFS-22636-1
c33 N76-21390	NASA-CASE-ARC-10711-2		US-PATENT-APPL-SN-536762
	US-PATENT-APPL-SN-493363		US-PATENT-CLASS-114-16.6
	US-PATENT-APPL-SN-596788		US-PATENT-CLASS-244-137P
	US-PATENT-CLASS-73-398C		US-PATENT-CLASS-244-158
	US-PATENT-CLASS-317-246		US-PATENT-CLASS-244-161
	US-PATENT-3,948,102		US-PATENT-3,952,976
c37 N76-21554	NASA-CASE-LAR-11465-1	c37 N76-22541	NASA-CASE-LEW-11676-1
	US-PATENT-APPL-SN-502137		US-PATENT-APPL-SN-551184
	US-PATENT-CLASS-33-1G		US-PATENT-CLASS-277-4
	US-PATENT-CLASS-33-174B		US-PATENT-CLASS-277-41
	US-PATENT-CLASS-156-286		US-PATENT-CLASS-277-74

ACCESSION NUMBER INDEX

c44 N76-22657 US-PATENT-CLASS-277-93R
 US-PATENT-3,953,038
 NASA-CASE-NFS-22743-1
 US-PATENT-APPL-SN-518688
 US-PATENT-CLASS-126-271
 US-PATENT-3,951,129
 c54 N76-22914 NASA-CASE-GSC-12082-1
 US-PATENT-APPL-SN-676958
 c74 N76-22993 NASA-CASE-ARC-10932-1
 US-PATENT-APPL-SN-681001
 c09 N76-23273 NASA-CASE-NFS-23099-1
 US-PATENT-APPL-SN-607969
 US-PATENT-CLASS-73-147
 US-PATENT-3,952,590
 c27 N76-23426 NASA-CASE-HSC-14270-2
 US-PATENT-APPL-SN-482105
 US-PATENT-CLASS-106-54
 US-PATENT-CLASS-427-376
 US-PATENT-CLASS-427-379
 US-PATENT-CLASS-427-380
 US-PATENT-CLASS-427-402
 US-PATENT-CLASS-428-332
 US-PATENT-CLASS-428-428
 US-PATENT-CLASS-428-450
 US-PATENT-CLASS-428-538
 US-PATENT-CLASS-428-920
 US-PATENT-3,955,034
 c33 N76-23483 NASA-CASE-NFS-23186-1
 US-PATENT-APPL-SN-684810
 c34 N76-23522 NASA-CASE-XLA-8914-2
 US-PATENT-APPL-SN-662181
 c37 N76-23570 NASA-CASE-LEW-11169-1
 US-PATENT-APPL-SN-446568
 US-PATENT-CLASS-164-132
 US-PATENT-3,957,104
 c44 N76-23675 NASA-CASE-NFS-21628-2
 US-PATENT-APPL-SN-421702
 US-PATENT-APPL-SN-561020
 US-PATENT-CLASS-126-270
 US-PATENT-CLASS-165-133
 US-PATENT-3,957,030
 c60 N76-23850 NASA-CASE-HSC-14082-1
 US-PATENT-APPL-SN-315070
 US-PATENT-CLASS-340-347DD
 US-PATENT-CLASS-340-347P
 US-PATENT-3,958,238
 c09 N76-24280 NASA-CASE-ARC-10808-1
 US-PATENT-APPL-SN-505881
 US-PATENT-CLASS-35-12N
 US-PATENT-CLASS-178-DIG.35
 US-PATENT-CLASS-178-7.89
 US-PATENT-3,956,833
 c24 N76-24363 NASA-CASE-GSC-11786-1
 US-PATENT-APPL-SN-401919
 US-PATENT-CLASS-106-306
 US-PATENT-CLASS-250-372
 US-PATENT-CLASS-252-300
 US-PATENT-CLASS-350-1
 US-PATENT-3,957,675
 c27 N76-24405 NASA-CASE-HSC-14331-1
 US-PATENT-APPL-SN-374421
 US-PATENT-CLASS-106-15PP
 US-PATENT-CLASS-260-DIG.24
 US-PATENT-CLASS-260-33.8P
 US-PATENT-CLASS-260-45.7
 US-PATENT-CLASS-260-92.1
 US-PATENT-CLASS-526-1
 US-PATENT-CLASS-526-255
 US-PATENT-3,956,233
 c35 N76-24523 NASA-CASE-LAR-11500-1
 US-PATENT-APPL-SN-534266
 US-PATENT-CLASS-73-1B
 US-PATENT-CLASS-73-15.6
 US-PATENT-3,956,919
 c35 N76-24524 NASA-CASE-NPO-13462-1
 US-PATENT-APPL-SN-545282
 US-PATENT-CLASS-73-189
 US-PATENT-CLASS-73-204
 US-PATENT-3,956,932
 c35 N76-24525 NASA-CASE-ARC-10816-1
 US-PATENT-APPL-SN-552454
 US-PATENT-CLASS-128-DIG.4
 US-PATENT-CLASS-128-2.1E
 US-PATENT-CLASS-128-2.1E
 US-PATENT-CLASS-128-2.05V
 US-PATENT-3,957,037
 c36 N76-24553 NASA-CASE-NPO-13531-1
 US-PATENT-APPL-SN-531565
 US-PATENT-CLASS-331-94.5C

c37 N76-24575 US-PATENT-CLASS-350-96WG
 US-PATENT-3,958,188
 NASA-CASE-LAR-10073-1
 US-PATENT-APPL-SN-436317
 US-PATENT-CLASS-156-242
 US-PATENT-CLASS-156-286
 US-PATENT-CLASS-264-102
 US-PATENT-CLASS-264-267
 US-PATENT-CLASS-428-117
 US-PATENT-3,956,050
 c44 N76-24696 NASA-CASE-NFS-22744-1
 US-PATENT-APPL-SN-518504
 US-PATENT-CLASS-126-270
 US-PATENT-CLASS-126-271
 US-PATENT-CLASS-350-293
 US-PATENT-CLASS-350-299
 US-PATENT-3,958,553
 c54 N76-24900 NASA-CASE-HSC-14733-1
 NASA-CASE-HSC-14735-1
 US-PATENT-APPL-SN-522971
 US-PATENT-CLASS-128-142.2
 US-PATENT-CLASS-128-203
 US-PATENT-CLASS-137-DIG.9
 US-PATENT-CLASS-137-110
 US-PATENT-3,957,044
 c76 N76-25049 NASA-CASE-LEW-12094-1
 US-PATENT-APPL-SN-508784
 US-PATENT-CLASS-148-175
 US-PATENT-CLASS-156-610
 US-PATENT-CLASS-156-612
 US-PATENT-CLASS-156-613
 US-PATENT-CLASS-252-62.3
 US-PATENT-CLASS-423-345
 US-PATENT-CLASS-423-346
 US-PATENT-3,956,032
 c04 N76-26175 NASA-CASE-NFS-23551-1
 US-PATENT-APPL-SN-114772
 US-PATENT-CLASS-74-5.34
 US-PATENT-CLASS-244-79
 US-PATENT-3,739,646
 c09 N76-26224 NASA-CASE-ARC-10971-1
 US-PATENT-APPL-SN-694402
 c07 N76-27232 NASA-CASE-LAR-11476-1
 US-PATENT-APPL-SN-592159
 US-PATENT-CLASS-73-557
 US-PATENT-3,964,319
 c25 N76-27383 NASA-CASE-LEW-11390-2
 US-PATENT-APPL-SN-247438
 US-PATENT-APPL-SN-340863
 US-PATENT-CLASS-176-11
 US-PATENT-CLASS-176-16
 US-PATENT-CLASS-423-249
 US-PATENT-3,966,547
 c33 N76-27472 NASA-CASE-GSC-11924-1
 US-PATENT-APPL-SN-582318
 US-PATENT-CLASS-343-755
 US-PATENT-CLASS-343-779
 US-PATENT-CLASS-343-854
 US-PATENT-3,965,475
 c33 N76-27473 NASA-CASE-HQN-10876-1
 US-PATENT-APPL-SN-555336
 US-PATENT-CLASS-250-336
 US-PATENT-CLASS-250-372
 US-PATENT-3,965,354
 c34 N76-27515 NASA-CASE-NPO-13391-1
 US-PATENT-APPL-SN-446567
 US-PATENT-CLASS-29-182
 US-PATENT-CLASS-29-193
 US-PATENT-CLASS-55-523
 US-PATENT-CLASS-55-526
 US-PATENT-CLASS-75-225
 US-PATENT-CLASS-165-105
 US-PATENT-3,964,902
 c34 N76-27517 NASA-CASE-ARC-10755-2
 US-PATENT-APPL-SN-424013
 US-PATENT-APPL-SN-545284
 US-PATENT-CLASS-73-147
 US-PATENT-CLASS-73-189
 US-PATENT-CLASS-73-194B
 US-PATENT-3,964,306
 c37 N76-27567 NASA-CASE-LAR-11709-1
 US-PATENT-APPL-SN-548468
 US-PATENT-CLASS-339-17M
 US-PATENT-CLASS-339-18C
 US-PATENT-3,964,813
 c37 N76-27568 NASA-CASE-LAR-11726-1
 US-PATENT-APPL-SN-538047
 US-PATENT-CLASS-219-92
 US-PATENT-CLASS-219-118

ACCESSION NUMBER INDEX

c44 N76-27664	US-PATENT-3,967,091 NASA-CASE-NFS-23059-1 US-PATENT-APPL-SN-537024 US-PATENT-CLASS-136-86A US-PATENT-3,964,928	c44 N76-29701	US-PATENT-CLASS-123-1A US-PATENT-CLASS-123-3 US-PATENT-CLASS-423-650 US-PATENT-3,955,941 NASA-CASE-NPO-13567-1
c52 N76-27839	NASA-CASE-HSC-14836-1 US-PATENT-APPL-SN-691647		US-PATENT-APPL-SN-566493 US-PATENT-CLASS-60-517 US-PATENT-CLASS-62-6
c38 N76-28563	NASA-CASE-NPO-12142-1 US-PATENT-APPL-SN-637249 US-PATENT-CLASS-73-88.5 US-PATENT-3,545,262		US-PATENT-CLASS-417-141 US-PATENT-CLASS-417-207 US-PATENT-CLASS-417-209 US-PATENT-CLASS-417-379 US-PATENT-3,972,651
c44 N76-28635	NASA-CASE-GSC-12022-1 NASA-CASE-GSC-12023-1 US-PATENT-APPL-SN-576488 US-PATENT-CLASS-29-572 US-PATENT-CLASS-136-89 US-PATENT-CLASS-148-174 US-PATENT-CLASS-148-175 US-PATENT-CLASS-156-612 US-PATENT-CLASS-156-613 US-PATENT-CLASS-156-614 US-PATENT-CLASS-357-30 US-PATENT-CLASS-357-59 US-PATENT-CLASS-427-86 US-PATENT-CLASS-427-113 US-PATENT-CLASS-427-248 US-PATENT-CLASS-427-249 US-PATENT-CLASS-427-250 US-PATENT-3,961,997	c44 N76-29704	NASA-CASE-NPO-13464-2 US-PATENT-APPL-SN-428444 US-PATENT-APPL-SN-553687 US-PATENT-CLASS-42-215 US-PATENT-CLASS-48-197R US-PATENT-CLASS-252-373 US-PATENT-CLASS-423-650 US-PATENT-CLASS-431-4 US-PATENT-CLASS-431-163 US-PATENT-CLASS-431-210 US-PATENT-3,971,847
c05 N76-29217	NASA-CASE-ARC-10470-3 US-PATENT-APPL-SN-206279 US-PATENT-APPL-SN-321180 US-PATENT-APPL-SN-496779 US-PATENT-CLASS-244-46 US-PATENT-3,971,535	c51 N76-29891	NASA-CASE-GSC-11917-2 US-PATENT-APPL-SN-475337 US-PATENT-APPL-SN-555641 US-PATENT-CLASS-195-103.5R US-PATENT-3,971,703
c17 N76-29347	NASA-CASE-ARC-10849-1 US-PATENT-APPL-SN-563049 US-PATENT-CLASS-73-493 US-PATENT-CLASS-73-517R US-PATENT-CLASS-340-189H US-PATENT-CLASS-340-206 US-PATENT-3,972,038	c52 N76-29894	NASA-CASE-ARC-10583-1 US-PATENT-APPL-SN-301418 US-PATENT-CLASS-128-2.1A US-PATENT-CLASS-128-2H US-PATENT-CLASS-128-2P US-PATENT-3,971,362
c25 N76-29379	NASA-CASE-LEW-11390-3 US-PATENT-APPL-SN-247434 US-PATENT-APPL-SN-380046 US-PATENT-CLASS-176-11 US-PATENT-CLASS-176-14 US-PATENT-CLASS-176-16 US-PATENT-CLASS-250-400 US-PATENT-CLASS-250-429 US-PATENT-CLASS-250-492R US-PATENT-3,971,697	c52 N76-29895	NASA-CASE-NPO-13644-1 US-PATENT-APPL-SN-574218 US-PATENT-CLASS-128-2.05R US-PATENT-CLASS-128-2S US-PATENT-CLASS-338-6 US-PATENT-3,971,363
c35 N76-29551	NASA-CASE-LAR-10907-1 US-PATENT-APPL-SN-559845 US-PATENT-CLASS-250-340 US-PATENT-CLASS-250-353 US-PATENT-3,971,940	c52 N76-29896	NASA-CASE-NPO-13643-1 US-PATENT-APPL-SN-578241 US-PATENT-CLASS-73-398AR US-PATENT-CLASS-128-2.05R US-PATENT-CLASS-128-2.06R US-PATENT-CLASS-128-2S US-PATENT-CLASS-128-418 US-PATENT-CLASS-128-419P US-PATENT-3,971,364
c35 N76-29552	NASA-CASE-HSC-12617-1 US-PATENT-APPL-SN-513576 US-PATENT-CLASS-235-61NV US-PATENT-CLASS-235-78H US-PATENT-CLASS-235-88H US-PATENT-3,971,915	c74 N76-30053	NASA-CASE-GSC-11782-1 US-PATENT-APPL-SN-463925 US-PATENT-CLASS-250-199 US-PATENT-3,971,930
c36 N76-29575	NASA-CASE-NPO-13346-1 US-PATENT-APPL-SN-533556 US-PATENT-CLASS-330-4.3 US-PATENT-CLASS-331-94.5C US-PATENT-3,972,008	c91 N76-30131	NASA-CASE-HSC-12423-1 US-PATENT-APPL-SN-448320 US-PATENT-CLASS-73-170R US-PATENT-CLASS-73-425.2 US-PATENT-CLASS-73-432R US-PATENT-3,971,256
c37 N76-29588	NASA-CASE-LEW-11949-1 US-PATENT-APPL-SN-590182 US-PATENT-CLASS-308-160 US-PATENT-CLASS-308-163 US-PATENT-CLASS-308-170 US-PATENT-3,971,602	c52 N76-30793	NASA-CASE-ARC-10329-2 NASA-CASE-RE-ARC-10329-2 US-PATENT-APPL-SN-159857 US-PATENT-APPL-SN-452768 US-PATENT-CLASS-351-23 US-PATENT-CLASS-351-30 US-PATENT-CLASS-351-36 US-PATENT-RE-28,921 US-PATENT-3,737,214
c37 N76-29590	NASA-CASE-NPO-13613-1 US-PATENT-APPL-SN-574208 US-PATENT-CLASS-62-6 US-PATENT-3,971,230	c06 N76-31229	NASA-CASE-LAR-11833-1 US-PATENT-APPL-SN-725828
c44 N76-29699	NASA-CASE-BQN-10862-1 US-PATENT-APPL-SN-604374 US-PATENT-CLASS-136-30 US-PATENT-CLASS-136-143 US-PATENT-3,972,727	c31 N76-31365	NASA-CASE-ARC-10445-1 US-PATENT-APPL-SN-491418 US-PATENT-CLASS-313-250 US-PATENT-CLASS-313-306 US-PATENT-CLASS-313-309 US-PATENT-CLASS-313-338 US-PATENT-3,978,364
c44 N76-29700	NASA-CASE-NPO-13342-2 US-PATENT-APPL-SN-390049 US-PATENT-APPL-SN-548559 US-PATENT-CLASS-23-281 US-PATENT-CLASS-48-95 US-PATENT-CLASS-48-215	c32 N76-31372	NASA-CASE-NPO-13465-1 US-PATENT-APPL-SN-531575 US-PATENT-CLASS-179-15A US-PATENT-3,978,287
		c33 N76-31409	NASA-CASE-NPO-12134-1 US-PATENT-APPL-SN-536785 US-PATENT-CLASS-313-94 US-PATENT-CLASS-357-63 US-PATENT-3,978,360
		c33 N76-31410	NASA-CASE-NFS-22880-1 US-PATENT-APPL-SN-557444

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-307-255		US-PATENT-APPL-SN-616333
	US-PATENT-CLASS-307-300		US-PATENT-CLASS-343-882
	US-PATENT-CLASS-307-313		US-PATENT-CLASS-343-915
	US-PATENT-CLASS-307-315		US-PATENT-3,978,490
	US-PATENT-3,978,350	c35 N76-31489	NASA-CASE-LAR-10344-1
	NASA-CASE-GSC-11893-1		US-PATENT-APPL-SN-730779
	US-PATENT-APPL-SN-585420	c52 N76-33835	NASA-CASE-ARC-10994-1
	US-PATENT-CLASS-73-9		US-PATENT-APPL-SN-728369
	US-PATENT-3,977,231	c02 N77-10001	NASA-CASE-LAR-11645-1
c35 N76-31490	NASA-CASE-NPO-13604-1		US-PATENT-APPL-SN-473973
	US-PATENT-APPL-SN-574219		US-PATENT-CLASS-244-113
	US-PATENT-CLASS-356-106S		US-PATENT-CLASS-244-130
	US-PATENT-CLASS-356-114		US-PATENT-3,984,070
	US-PATENT-CLASS-356-209	c09 N77-10071	NASA-CASE-NPO-13528-1
	US-PATENT-CLASS-356-244		US-PATENT-APPL-SN-521620
	US-PATENT-3,977,787		US-PATENT-CLASS-73-147
c36 N76-31512	NASA-CASE-NPO-13490-1		US-PATENT-3,983,749
	US-PATENT-APPL-SN-549418	c15 N77-10112	NASA-CASE-HFS-20855-1
	US-PATENT-CLASS-330-4		US-PATENT-APPL-SN-243374
	US-PATENT-CLASS-331-94		US-PATENT-CLASS-244-1SD
	US-PATENT-3,978,417		US-PATENT-3,744,739
c37 N76-31524	NASA-CASE-NPO-13535-1	c15 N77-10113	NASA-CASE-HFS-22787-1
	US-PATENT-APPL-SN-563050		US-PATENT-APPL-SN-511346
	US-PATENT-CLASS-264-129		US-PATENT-CLASS-244-3.21
	US-PATENT-CLASS-264-161		US-PATENT-CLASS-244-169
	US-PATENT-CLASS-264-219		US-PATENT-CLASS-244-171
	US-PATENT-CLASS-264-304		US-PATENT-3,984,072
	US-PATENT-CLASS-264-305	c20 N77-10148	NASA-CASE-LEW-12082-1
	US-PATENT-CLASS-264-308		US-PATENT-APPL-SN-612964
	US-PATENT-CLASS-264-310		US-PATENT-CLASS-60-202
	US-PATENT-CLASS-264-318		US-PATENT-CLASS-313-231.4
	US-PATENT-CLASS-264-334		US-PATENT-CLASS-313-240
	US-PATENT-CLASS-827-230		US-PATENT-CLASS-313-361
	US-PATENT-3,978,187		US-PATENT-CLASS-315-111.3
c39 N76-31562	NASA-CASE-HSC-19372-1		US-PATENT-3,983,695
	US-PATENT-APPL-SN-517995	c28 N77-10213	NASA-CASE-LAR-11995-1
	US-PATENT-CLASS-29-467		US-PATENT-APPL-SN-238826
	US-PATENT-CLASS-29-526		US-PATENT-CLASS-86-1R
	US-PATENT-CLASS-52-236		US-PATENT-CLASS-102-99
	US-PATENT-CLASS-52-637		US-PATENT-CLASS-264-3R
	US-PATENT-CLASS-52-648		US-PATENT-3,983,780
	US-PATENT-CLASS-52-651	c31 N77-10229	NASA-CASE-NPO-13459-1
	US-PATENT-CLASS-52-726		US-PATENT-APPL-SN-598967
	US-PATENT-CLASS-52-745		US-PATENT-CLASS-62-217
	US-PATENT-CLASS-52-749		US-PATENT-CLASS-62-514JT
	US-PATENT-CLASS-182-178		US-PATENT-3,983,714
	US-PATENT-3,977,147	c32 N77-10392	NASA-CASE-LAR-11827-1
c41 N76-31666	NASA-CASE-NPO-13087-2		US-PATENT-APPL-SN-412379
	US-PATENT-APPL-SN-296622		US-PATENT-APPL-SN-561764
	US-PATENT-APPL-SN-462341		US-PATENT-CLASS-178-88
	US-PATENT-CLASS-136-89		US-PATENT-CLASS-235-150.1
	US-PATENT-CLASS-136-206		US-PATENT-CLASS-235-156
	US-PATENT-3,966,499		US-PATENT-CLASS-325-323
c44 N76-31667	NASA-CASE-HFS-23167-1		US-PATENT-CLASS-325-349
	US-PATENT-APPL-SN-602618		US-PATENT-CLASS-325-476
	US-PATENT-CLASS-60-659		US-PATENT-3,984,634
	US-PATENT-CLASS-165-10	c33 N77-10428	NASA-CASE-NPO-13512-1
	US-PATENT-3,977,197		US-PATENT-APPL-SN-533734
c45 N76-31714	NASA-CASE-LAR-11405-1		US-PATENT-CLASS-321-2
	US-PATENT-APPL-SN-537480		US-PATENT-CLASS-321-19
	US-PATENT-CLASS-23-230R		US-PATENT-CLASS-323-DIG.1
	US-PATENT-CLASS-23-232E		US-PATENT-CLASS-323-17
	US-PATENT-CLASS-23-232R		US-PATENT-CLASS-323-22T
	US-PATENT-3,977,831		US-PATENT-CLASS-323-23
c62 N76-31946	NASA-CASE-GSC-12115-1		US-PATENT-3,984,799
	US-PATENT-APPL-SN-262596	c33 N77-10429	NASA-CASE-GSC-11963-1
	US-PATENT-CLASS-340-347SY		US-PATENT-APPL-SN-595197
	US-PATENT-3,976,997		US-PATENT-CLASS-244-1A
c74 N76-31998	NASA-CASE-HSC-12640-1		US-PATENT-CLASS-244-42CG
	US-PATENT-APPL-SN-591568		US-PATENT-CLASS-317-2D
	US-PATENT-CLASS-350-162SF		US-PATENT-CLASS-324-72
	US-PATENT-3,977,771		US-PATENT-3,984,730
c03 N76-32140	NASA-CASE-HFS-16609-3	c34 N77-10463	NASA-CASE-HFS-22991-1
	US-PATENT-APPL-SN-82279		US-PATENT-APPL-SN-521006
	US-PATENT-APPL-SN-307714		US-PATENT-CLASS-165-164
	US-PATENT-APPL-SN-511894		US-PATENT-CLASS-165-170
	US-PATENT-CLASS-325-114		US-PATENT-3,983,933
	US-PATENT-CLASS-325-115	c35 N77-10492	NASA-CASE-NPO-13479-1
	US-PATENT-CLASS-325-186		US-PATENT-APPL-SN-500981
	US-PATENT-CLASS-343-705		US-PATENT-CLASS-250-290
	US-PATENT-3,978,410		US-PATENT-CLASS-250-291
c27 N76-32315	NASA-CASE-ARC-10592-2		US-PATENT-3,984,681
	US-PATENT-APPL-SN-321179	c35 N77-10493	NASA-CASE-HFS-23178-1
	US-PATENT-APPL-SN-418043		US-PATENT-APPL-SN-637247
	US-PATENT-CLASS-260-240G		US-PATENT-CLASS-250-338
	US-PATENT-CLASS-260-566B		US-PATENT-CLASS-250-339
	US-PATENT-3,803,090		US-PATENT-CLASS-250-347
	US-PATENT-3,965,096		US-PATENT-CLASS-356-106R
c33 N76-32457	NASA-CASE-NPO-13553-1		US-PATENT-3,984,686

ACCESSION NUMBER INDEX

c36 N77-10517	NASA-CASE-LAR-12012-1	US-PATENT-APPL-SN-139596
	US-PATENT-APPL-SN-738219	US-PATENT-CLASS-307-233
c43 N77-10584	NASA-CASE-MSC-14472-1	US-PATENT-CLASS-307-295
	US-PATENT-APPL-SN-502138	US-PATENT-CLASS-328-133
	US-PATENT-CLASS-235-181	US-PATENT-3,750,035
	US-PATENT-CLASS-340-146.3P	
	US-PATENT-CLASS-340-146.3Q	
	US-PATENT-3,984,671	
c44 N77-10635	NASA-CASE-MPS-22458-1	c33 N77-13338
	US-PATENT-APPL-SN-571458	NASA-CASE-MSC-12745-1
	US-PATENT-CLASS-29-572	US-PATENT-APPL-SN-746579
	US-PATENT-CLASS-136-89	NASA-CASE-ARC-10905-1
	US-PATENT-3,984,256	US-PATENT-APPL-SN-618594
c44 N77-10636	NASA-CASE-NPO-13560-1	US-PATENT-CLASS-219-300
	NASA-CASE-NPO-13561-1	US-PATENT-CLASS-219-304
	US-PATENT-APPL-SN-487156	US-PATENT-CLASS-239-171
	US-PATENT-CLASS-23-281	US-PATENT-CLASS-252-359P
	US-PATENT-CLASS-48-61	US-PATENT-3,990,987
	US-PATENT-CLASS-48-116	NASA-CASE-LEW-12419-1
	US-PATENT-CLASS-48-117	US-PATENT-APPL-SN-579375
	US-PATENT-CLASS-48-197R	US-PATENT-CLASS-60-226R
	US-PATENT-CLASS-48-212	US-PATENT-CLASS-416-153
	US-PATENT-CLASS-123-3	US-PATENT-CLASS-416-160
	US-PATENT-CLASS-252-373	US-PATENT-CLASS-416-162
	US-PATENT-CLASS-423-650	US-PATENT-CLASS-416-165
	US-PATENT-CLASS-431-11	US-PATENT-CLASS-416-167
	US-PATENT-CLASS-431-41	US-PATENT-3,994,128
	US-PATENT-CLASS-431-116	c27 N77-14262
	US-PATENT-CLASS-431-162	NASA-CASE-MSC-16074-1
	US-PATENT-CLASS-431-170	US-PATENT-APPL-SN-747674
	US-PATENT-3,982,910	NASA-CASE-LAR-11607-1
c47 N77-10753	NASA-CASE-MPS-23362-1	US-PATENT-APPL-SN-617895
	US-PATENT-APPL-SN-637268	US-PATENT-CLASS-325-145
	US-PATENT-CLASS-250-338	US-PATENT-CLASS-332-22
	US-PATENT-CLASS-250-339	US-PATENT-CLASS-332-23H
	US-PATENT-CLASS-250-347	US-PATENT-3,996,532
	US-PATENT-CLASS-356-106R	c33 N77-14333
	US-PATENT-3,984,685	NASA-CASE-GSC-11789-1
c52 N77-10780	NASA-CASE-ARC-10855-1	US-PATENT-APPL-SN-538982
	US-PATENT-APPL-SN-617612	US-PATENT-CLASS-317-31
	US-PATENT-CLASS-73-343R	US-PATENT-CLASS-321-13
	US-PATENT-CLASS-128-2H	US-PATENT-3,996,506
	US-PATENT-3,983,753	c33 N77-14334
c74 N77-10899	NASA-CASE-MSC-19442-1	NASA-CASE-GSC-12018-1
	US-PATENT-APPL-SN-558600	US-PATENT-APPL-SN-635531
	US-PATENT-CLASS-356-237	US-PATENT-CLASS-329-122
	US-PATENT-CLASS-356-239	US-PATENT-CLASS-329-124
	US-PATENT-3,985,454	US-PATENT-CLASS-331-23
c37 N77-11397	NASA-CASE-LAR-11549-1	US-PATENT-CLASS-331-36C
	US-PATENT-APPL-SN-537979	US-PATENT-CLASS-332-30V
	US-PATENT-CLASS-219-92	US-PATENT-3,997,848
	US-PATENT-CLASS-219-118	c33 N77-14335
	US-PATENT-3,988,561	NASA-CASE-MPS-22560-1
c04 N77-12031	NASA-CASE-ARC-10990-1	US-PATENT-APPL-SN-589233
	US-PATENT-APPL-SN-749420	US-PATENT-CLASS-250-218A
c09 N77-12070	NASA-CASE-MPS-23460-1	US-PATENT-CLASS-330-14
	US-PATENT-APPL-SN-746578	US-PATENT-CLASS-330-28
c32 N77-12239	NASA-CASE-MSC-12506-1	US-PATENT-CLASS-330-59
	US-PATENT-APPL-SN-545283	US-PATENT-3,996,462
	US-PATENT-CLASS-340-347DD	c35 N77-14406
	US-PATENT-3,988,729	NASA-CASE-NPO-13663-1
c32 N77-12240	NASA-CASE-NPO-13543-1	US-PATENT-APPL-SN-634205
	NASA-CASE-NPO-13545-1	US-PATENT-CLASS-250-289
	US-PATENT-APPL-SN-589173	US-PATENT-CLASS-250-298
	US-PATENT-CLASS-325-41	US-PATENT-3,996,464
	US-PATENT-CLASS-340-146.1AL	c35 N77-14407
	US-PATENT-CLASS-340-146.1AQ	NASA-CASE-LAR-11648-1
	US-PATENT-CLASS-340-146.1AV	US-PATENT-APPL-SN-645571
	US-PATENT-3,988,677	US-PATENT-CLASS-73-133R
c32 N77-12248	NASA-CASE-MSC-16170-1	US-PATENT-3,995,476
	US-PATENT-APPL-SN-737975	c35 N77-14408
c34 N77-12332	NASA-CASE-LAR-11626-1	NASA-CASE-ARC-10448-3
	US-PATENT-APPL-SN-744542	US-PATENT-APPL-SN-221670
c37 N77-12402	NASA-CASE-MPS-23062-1	US-PATENT-APPL-SN-318848
	US-PATENT-APPL-SN-591569	US-PATENT-CLASS-250-396
	US-PATENT-CLASS-60-527	US-PATENT-3,996,468
	US-PATENT-3,987,630	c35 N77-14409
c60 N77-12721	NASA-CASE-NPO-13428-1	NASA-CASE-NPO-13540-1
	NASA-CASE-NPO-13447-1	US-PATENT-APPL-SN-526450
	US-PATENT-APPL-SN-495022	US-PATENT-CLASS-136-232
	US-PATENT-CLASS-179-15BA	US-PATENT-CLASS-136-233
	US-PATENT-CLASS-328-111	US-PATENT-3,996,070
	US-PATENT-CLASS-340-172.5	c35 N77-14411
	US-PATENT-3,988,716	NASA-CASE-NPO-13683-1
c27 N77-13217	NASA-CASE-NPO-13666-1	US-PATENT-APPL-SN-599284
	US-PATENT-APPL-SN-633877	US-PATENT-CLASS-250-343
	US-PATENT-CLASS-29-182.5	US-PATENT-CLASS-356-97
	US-PATENT-3,990,860	US-PATENT-CLASS-356-201
c33 N77-13315	NASA-CASE-NPO-11515-1	US-PATENT-CLASS-356-204
		US-PATENT-3,995,960
		c37 N77-14477
		NASA-CASE-FRC-10081-1
		US-PATENT-APPL-SN-598504
		US-PATENT-CLASS-280-432
		US-PATENT-3,995,877
		c37 N77-14478
		NASA-CASE-LAR-11658-1
		US-PATENT-APPL-SN-625759
		US-PATENT-CLASS-83-451
		US-PATENT-CLASS-83-467R
		US-PATENT-3,995,522
		c37 N77-14479
		NASA-CASE-GSC-11960-1
		US-PATENT-APPL-SN-629456
		US-PATENT-CLASS-242-57

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-242-187	c33 N77-17351	NASA-CASE-MPS-23181-1
	US-PATENT-CLASS-242-193		US-PATENT-APPL-SN-566495
	US-PATENT-CLASS-242-204		US-PATENT-CLASS-331-114
	US-PATENT-CLASS-242-210		US-PATENT-CLASS-331-177V
	US-PATENT-3,995,789		US-PATENT-CLASS-332-18
c44 N77-14580	NASA-CASE-LEW-11496-1		US-PATENT-CLASS-332-30V
	US-PATENT-APPL-SN-645508		US-PATENT-4,003,004
	US-PATENT-CLASS-136-89	c33 N77-17354	NASA-CASE-LEW-11881-1
	US-PATENT-CLASS-204-192		US-PATENT-APPL-SN-598968
	US-PATENT-3,996,067		US-PATENT-CLASS-307-229
c44 N77-14581	NASA-CASE-LEW-12220-1		US-PATENT-CLASS-307-230
	US-PATENT-APPL-SN-606891		US-PATENT-CLASS-328-161
	US-PATENT-CLASS-320-2		US-PATENT-4,001,602
	US-PATENT-CLASS-429-23	c35 N77-17426	NASA-CASE-MPS-22671-2
	US-PATENT-CLASS-429-34		US-PATENT-APPL-SN-419831
	US-PATENT-3,996,064		US-PATENT-APPL-SN-561956
c52 N77-14735	NASA-CASE-MPS-23225-1		US-PATENT-CLASS-360-25
	US-PATENT-APPL-SN-612965		US-PATENT-CLASS-360-31
	US-PATENT-CLASS-3-1.2		US-PATENT-4,003,084
	US-PATENT-CLASS-3-14	c37 N77-17464	NASA-CASE-GSC-11970-1
	US-PATENT-3,995,324		US-PATENT-APPL-SN-593142
c52 N77-14736	NASA-CASE-ARC-11007-1		US-PATENT-CLASS-308-10
	US-PATENT-APPL-SN-652948		US-PATENT-4,000,929
	US-PATENT-CLASS-128-28	c37 N77-17466	NASA-CASE-MPO-13823-1
	US-PATENT-CLASS-128-379		US-PATENT-APPL-SN-658487
	US-PATENT-CLASS-128-400	c38 N77-17495	NASA-CASE-GSC-11902-1
	US-PATENT-CLASS-128-402		US-PATENT-APPL-SN-565289
	US-PATENT-3,995,621		US-PATENT-CLASS-235-92CA
c52 N77-14737	NASA-CASE-HSC-14276-1		US-PATENT-CLASS-235-92CT
	US-PATENT-APPL-SN-557430		US-PATENT-CLASS-235-92DN
	US-PATENT-CLASS-250-363R		US-PATENT-CLASS-235-92R
	US-PATENT-CLASS-250-444		US-PATENT-4,001,552
	US-PATENT-CLASS-250-498	c07 N77-17454	NASA-CASE-ARC-10761-1
	US-PATENT-3,996,471		US-PATENT-APPL-SN-612899
c52 N77-14738	NASA-CASE-KSC-10849-1		US-PATENT-CLASS-137-15.1
	US-PATENT-APPL-SN-613734		US-PATENT-CLASS-244-53B
	US-PATENT-CLASS-3-1.1		US-PATENT-4,007,891
	US-PATENT-CLASS-128-418	c27 N77-18265	NASA-CASE-ARC-10980-1
	US-PATENT-CLASS-339-252R		US-PATENT-APPL-SN-694407
	US-PATENT-3,995,644	c32 N77-18307	NASA-CASE-MPS-23303-1
c60 N77-14751	NASA-CASE-GSC-11839-1		US-PATENT-APPL-SN-676957
858,582	US-PATENT-APPL-SN-468614		US-PATENT-CLASS-333-70R
P-0128	US-PATENT-CLASS-235-152		US-PATENT-CLASS-333-75
	US-PATENT-CLASS-250-227		US-PATENT-CLASS-333-76
820280-M2	US-PATENT-CLASS-340-172.5		US-PATENT-CLASS-333-82B
SE-EFE-22A1	US-PATENT-CLASS-350-96R		US-PATENT-4,007,434
for-EFE-22A1	US-PATENT-3,996,455	c34 N77-18382	NASA-CASE-LAR-10805-2
1005-ENT-15027	NASA-CASE-LAR-11852-1		US-PATENT-APPL-SN-628992
ASS-EFE-22	US-PATENT-APPL-SN-742035		US-PATENT-APPL-SN-578240
1007-N77-15036	NASA-CASE-LAR-11903-1		US-PATENT-CLASS-244-117A
	US-PATENT-APPL-SN-753971		US-PATENT-CLASS-427-160
c32 N77-15233	NASA-CASE-HSC-16100-1		US-PATENT-CLASS-427-322
	US-PATENT-APPL-SN-750796		US-PATENT-CLASS-428-35
c52 N77-15619	NASA-CASE-ARC-10994-2		US-PATENT-CLASS-428-421
	US-PATENT-APPL-SN-759965		US-PATENT-CLASS-428-461
c05 N77-17029	NASA-CASE-ARC-10807-1		US-PATENT-CLASS-428-474
	US-PATENT-APPL-SN-513612		US-PATENT-4,008,348
	US-PATENT-CLASS-416-104	c35 N77-18417	NASA-CASE-ARC-10898-1
	US-PATENT-CLASS-416-138		US-PATENT-APPL-SN-625732
	US-PATENT-CLASS-416-141		US-PATENT-CLASS-73-12
	US-PATENT-3,999,866		US-PATENT-CLASS-73-71.6
c07 N77-17059	NASA-CASE-LEW-12760-1		US-PATENT-CLASS-73-432SD
	US-PATENT-APPL-SN-569925		US-PATENT-4,007,623
	US-PATENT-CLASS-60-226A	c73 N77-18891	NASA-CASE-MPO-13121-1
	US-PATENT-CLASS-60-228		US-PATENT-APPL-SN-294727
	US-PATENT-4,005,574		US-PATENT-CLASS-310-4R
c20 N77-17143	NASA-CASE-ILA-1349		US-PATENT-CLASS-313-311
	US-PATENT-APPL-SN-54552		US-PATENT-CLASS-346R
	US-PATENT-APPL-SN-256493		US-PATENT-4,008,407
	US-PATENT-CLASS-86-1R	c74 N77-18893	NASA-CASE-HSC-14683-1
	US-PATENT-CLASS-86-20R		US-PATENT-APPL-SN-612967
	US-PATENT-CLASS-102-49.3		US-PATENT-CLASS-358-44
	US-PATENT-CLASS-264-3R		US-PATENT-4,004,292
	US-PATENT-4,000,682	c04 N77-19056	NASA-CASE-LAR-11387-2
c23 N77-17161	NASA-CASE-HSC-14428-1		US-PATENT-APPL-SN-531647
	US-PATENT-APPL-SN-450504		US-PATENT-APPL-SN-623156
	US-PATENT-CLASS-23-230B		US-PATENT-CLASS-333-356
	US-PATENT-CLASS-23-230H		US-PATENT-CLASS-73-178R
	US-PATENT-CLASS-23-230R		US-PATENT-4,006,631
	US-PATENT-CLASS-23-231	c09 N77-19076	NASA-CASE-ARC-10979-1
	US-PATENT-CLASS-23-232C		US-PATENT-APPL-SN-608483
	US-PATENT-CLASS-23-232R		US-PATENT-CLASS-124-6
	US-PATENT-CLASS-23-254R		US-PATENT-CLASS-244-63
	US-PATENT-CLASS-55-67		US-PATENT-3,989,206
	US-PATENT-CLASS-55-74	c24 N77-19170	NASA-CASE-LEW-12550-1
	US-PATENT-CLASS-55-197		US-PATENT-APPL-SN-596905
	US-PATENT-CLASS-73-23.1		US-PATENT-CLASS-416-224
	US-PATENT-CLASS-73-61.1C		US-PATENT-CLASS-416-230
	US-PATENT-4,003,257		US-PATENT-4,006,999

ACCESSION NUMBER INDEX

c24 N77-19171	NASA-CASE-LEW-12619-1 US-PATENT-APPL-SN-462424 US-PATENT-CLASS-29-527.2 US-PATENT-CLASS-204-9 US-PATENT-CLASS-204-16 US-PATENT-CLASS-204-40 US-PATENT-3,989,602	c35 N77-20400	US-PATENT-4,012,018 NASA-CASE-ARC-10911-1 US-PATENT-APPL-SN-610802 US-PATENT-CLASS-73-204 US-PATENT-CLASS-338-28 US-PATENT-4,011,756
c34 N77-19353	NASA-CASE-ARC-10912-1 US-PATENT-APPL-SN-623187 US-PATENT-CLASS-62-100 US-PATENT-CLASS-62-121 US-PATENT-CLASS-62-269 US-PATENT-CLASS-62-315 US-PATENT-4,007,601	c35 N77-20401	NASA-CASE-HFS-23267-1 US-PATENT-APPL-SN-653422 US-PATENT-CLASS-126-270 US-PATENT-CLASS-126-271 US-PATENT-CLASS-250-203R US-PATENT-4,011,854
c35 N77-19385	NASA-CASE-HSC-14653-1 US-PATENT-APPL-SN-521816 US-PATENT-CLASS-73-432R US-PATENT-CLASS-177-1 US-PATENT-CLASS-177-208 US-PATENT-3,988,933	c35 N77-20410	NASA-CASE-GSC-12147-1 US-PATENT-APPL-SN-780873 NASA-CASE-NPO-13579-2 US-PATENT-APPL-SN-762362 NASA-CASE-NPO-13579-3 US-PATENT-APPL-SN-762363 NASA-CASE-LAR-11782-1 US-PATENT-APPL-SN-608482 US-PATENT-CLASS-350-145 US-PATENT-CLASS-350-174 US-PATENT-4,012,123
c35 N77-19390	NASA-CASE-NPO-13804-1 US-PATENT-APPL-SN-766999 NASA-CASE-YNP-04167-3 US-PATENT-APPL-SN-170544 US-PATENT-APPL-SN-479357 US-PATENT-CLASS-331-94.5D US-PATENT-CLASS-331-94.5G US-PATENT-CLASS-331-94.5PB US-PATENT-4,007,430	c44 N77-20565	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c36 N77-19416	NASA-CASE-YNP-04167-3 US-PATENT-APPL-SN-170544 US-PATENT-APPL-SN-479357 US-PATENT-CLASS-331-94.5D US-PATENT-CLASS-331-94.5G US-PATENT-CLASS-331-94.5PB US-PATENT-4,007,430	c44 N77-20566	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c37 N77-19457	NASA-CASE-HFS-15218-1 US-PATENT-APPL-SN-387094 US-PATENT-CLASS-197-188 US-PATENT-CLASS-197-190 US-PATENT-3,989,136	c74 N77-20882	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c37 N77-19458	NASA-CASE-GSC-11883-1 NASA-CASE-GSC-11974-1 NASA-CASE-GSC-11975-1 US-PATENT-APPL-SN-596787 US-PATENT-CLASS-60-527 US-PATENT-CLASS-75-122.7 US-PATENT-CLASS-75-170 US-PATENT-CLASS-310-4A US-PATENT-CLASS-337-334 US-PATENT-CLASS-340-224 US-PATENT-4,010,455	c33 N77-21314	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c44 N77-19571	NASA-CASE-LEW-11549-1 US-PATENT-APPL-SN-510677 US-PATENT-CLASS-136-89 US-PATENT-3,989,541	c33 N77-21315	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c60 N77-19760	NASA-CASE-ARC-10899-1 US-PATENT-APPL-SN-576774 US-PATENT-CLASS-178-69.5R US-PATENT-CLASS-179-158S US-PATENT-CLASS-340-172.5 US-PATENT-3,990,049	c33 N77-21316	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c06 N77-20098	NASA-CASE-LAR-11941-1 US-PATENT-APPL-SN-780568 NASA-CASE-LEW-12048-1 US-PATENT-APPL-SN-665033 US-PATENT-CLASS-60-202 US-PATENT-CLASS-313-230 US-PATENT-CLASS-313-231.3 US-PATENT-CLASS-313-360 US-PATENT-CLASS-315-111.3 US-PATENT-CLASS-315-111.6 US-PATENT-4,011,719	c35 N77-21392	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c20 N77-20162	NASA-CASE-LEW-12048-1 US-PATENT-APPL-SN-665033 US-PATENT-CLASS-60-202 US-PATENT-CLASS-313-230 US-PATENT-CLASS-313-231.3 US-PATENT-CLASS-313-360 US-PATENT-CLASS-315-111.3 US-PATENT-CLASS-315-111.6 US-PATENT-4,011,719	c35 N77-21393	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c26 N77-20201	NASA-CASE-LEW-12245-1 US-PATENT-APPL-SN-584094 US-PATENT-CLASS-75-170 US-PATENT-CLASS-148-2 US-PATENT-CLASS-148-12.7H US-PATENT-CLASS-148-20.3 US-PATENT-CLASS-148-32.5 US-PATENT-CLASS-148-162 US-PATENT-4,012,237	c54 N77-21844	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c32 N77-20289	NASA-CASE-NPO-13753-1 US-PATENT-APPL-SN-658449 US-PATENT-CLASS-325-4 US-PATENT-CLASS-343-6.8R US-PATENT-CLASS-343-6.5R US-PATENT-CLASS-343-100ST US-PATENT-4,012,696	c74 N77-21941	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828
c35 N77-20399	NASA-CASE-ARC-107116-1 US-PATENT-APPL-SN-403695 US-PATENT-CLASS-235-150.2 US-PATENT-CLASS-235-150.25 US-PATENT-CLASS-244-3.21 US-PATENT-CLASS-244-165 US-PATENT-CLASS-244-171	c02 N77-22045	US-PATENT-4,019,179 NASA-CASE-NPO-10189-1 NASA-CASE-NPO-10781-1 US-PATENT-APPL-SN-744522 US-PATENT-CLASS-307-232 US-PATENT-CLASS-307-238 US-PATENT-CLASS-307-280 US-PATENT-CLASS-329-119 US-PATENT-CLASS-329-205 US-PATENT-CLASS-332-16 US-PATENT-CLASS-332-30 US-PATENT-CLASS-332-52 US-PATENT-3,582,828

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-313-182	c24 N77-24200	NASA-CASE-ARC-10915-3
	US-PATENT-3,736,453		US-PATENT-APPL-SN-797217
c34 N77-22423	NASA-CASE-HSC-12737-1	c26 N77-24254	NASA-CASE-LEW-12542-1
	US-PATENT-APPL-SN-788045		US-PATENT-APPL-SN-803822
c35 N77-22449	NASA-CASE-LAR-11825-1	c32 N77-24328	NASA-CASE-ARC-10984-1
	US-PATENT-APPL-SN-632112		US-PATENT-APPL-SN-690815
	US-PATENT-CLASS-73-88R		US-PATENT-CLASS-358-133
	US-PATENT-4,018,085		US-PATENT-CLASS-358-138
c35 N77-22450	NASA-CASE-HFS-23281-1		US-PATENT-4,025,950
	US-PATENT-APPL-SN-657995	c32 N77-24331	NASA-CASE-HSC-14840-1
	US-PATENT-CLASS-73-15.6		US-PATENT-APPL-SN-692414
	US-PATENT-CLASS-73-95		US-PATENT-CLASS-178-88
	US-PATENT-4,018,080		US-PATENT-CLASS-325-346
c37 N77-22478	NASA-CASE-NPO-10857-1		US-PATENT-CLASS-329-104
	US-PATENT-APPL-SN-886907		US-PATENT-CLASS-329-122
	US-PATENT-CLASS-408-186		US-PATENT-4,027,265
	US-PATENT-CLASS-408-193	c32 N77-24339	NASA-CASE-LAR-11745-1
	US-PATENT-CLASS-408-225		US-PATENT-APPL-SN-799025
	US-PATENT-3,635,573		NASA-CASE-NPO-13641-1
c37 N77-22479	NASA-CASE-NPO-10316-1	c32 N77-24340	US-PATENT-APPL-SN-777983
	US-PATENT-APPL-SN-703107		NASA-CASE-HSC-12709-1
	US-PATENT-CLASS-60-53	c33 N77-24375	US-PATENT-APPL-SN-630583
	US-PATENT-3,478,514		US-PATENT-CLASS-307-225R
c37 N77-22480	NASA-CASE-NPO-13058-1		US-PATENT-CLASS-328-4-8
	NASA-CASE-NPO-13096-1		US-PATENT-CLASS-328-38
	US-PATENT-APPL-SN-403154		US-PATENT-CLASS-328-39
	US-PATENT-CLASS-214-16.1CB		US-PATENT-CLASS-328-63
	US-PATENT-3,896,955		US-PATENT-4,025,866
c37 N77-22482	NASA-CASE-HSC-19536-1	c34 N77-24423	NASA-CASE-LAR-12045-1
	US-PATENT-APPL-SN-658450		US-PATENT-APPL-SN-682416
	US-PATENT-CLASS-74-96		US-PATENT-CLASS-259/4R
	US-PATENT-4,018,092		US-PATENT-CLASS-261-DTG.75
c40 N77-22606	NASA-CASE-LRW-12364-1		US-PATENT-CLASS-261-123
	US-PATENT-APPL-SN-707124		US-PATENT-4,026,527
	US-PATENT-CLASS-253-317	c35 N77-24454	NASA-CASE-ARC-10900-1
	US-PATENT-CLASS-429-105		US-PATENT-APPL-SN-630579
	US-PATENT-CLASS-429-107		US-PATENT-CLASS-338-28
	US-PATENT-CLASS-429-190		US-PATENT-CLASS-338-229
	US-PATENT-4,018,971		US-PATENT-4,025,891
c40 N77-22607	NASA-CASE-LAR-11361-1	c35 N77-24455	NASA-CASE-GSC-12077-1
	US-PATENT-APPL-SN-669928		US-PATENT-APPL-SN-635519
	US-PATENT-CLASS-23-277R		US-PATENT-CLASS-65-59A
	US-PATENT-CLASS-23-281		US-PATENT-CLASS-65-108
	US-PATENT-CLASS-55-158		US-PATENT-CLASS-6554
	US-PATENT-CLASS-423-648R		US-PATENT-CLASS-6564
	US-PATENT-4,019,868		US-PATENT-4,025,327
c40 N77-22794	NASA-CASE-GSC-12039-1	c36 N77-25499	NASA-CASE-GSC-11571-1
	US-PATENT-APPL-SN-572991		US-PATENT-APPL-SN-646704
	US-PATENT-CLASS-195-103.5K		US-PATENT-CLASS-331-94.5S
	US-PATENT-CLASS-195-103.5R		US-PATENT-4,025,875
	US-PATENT-4,014,745	c36 N77-25501	NASA-CASE-ARC-10970-1
c74 N77-22950	NASA-CASE-ARC-10976-1		US-PATENT-APPL-SN-691046
	US-PATENT-APPL-SN-665032		US-PATENT-CLASS-250-574
	US-PATENT-CLASS-356-171		US-PATENT-CLASS-350-100
	US-PATENT-4,018,533		US-PATENT-CLASS-350-102
c74 N77-22951	NASA-CASE-NPO-13722-1		US-PATENT-CLASS-356-28
	US-PATENT-APPL-SN-616472		US-PATENT-4,026,655
	US-PATENT-CLASS-250-203R	c36 N77-25502	NASA-CASE-NPO-13147-1
	US-PATENT-CLASS-250-211K		US-PATENT-APPL-SN-317310
	US-PATENT-CLASS-356-141		US-PATENT-CLASS-330-4.3
	US-PATENT-CLASS-356-152		US-PATENT-CLASS-331-94.5D
	US-PATENT-CLASS-356-172		US-PATENT-CLASS-331-94.5P
	US-PATENT-4,018,532		US-PATENT-4,027,273
c07 N77-23106	NASA-CASE-LRW-12830-1	c37 N77-25535	NASA-CASE-NPO-13798-1
	US-PATENT-APPL-SN-596641		US-PATENT-APPL-SN-788856
	US-PATENT-APPL-SN-655149	c37 N77-25536	NASA-CASE-HSC-19546-1
	US-PATENT-CLASS-60-39.03		US-PATENT-APPL-SN-793670
	US-PATENT-CLASS-60-39.28R	c51 N77-25769	NASA-CASE-LAR-10773-3
	US-PATENT-CLASS-60-39.66		US-PATENT-APPL-SN-125235
	US-PATENT-CLASS-123-41.33		US-PATENT-APPL-SN-314656
	US-PATENT-CLASS-123-122E		US-PATENT-APPL-SN-623238
	US-PATENT-CLASS-137-101		US-PATENT-CLASS-195-1.8
	US-PATENT-CLASS-415-180		US-PATENT-4,018,649
	US-PATENT-4,020,632	c52 N77-25772	NASA-CASE-KSC-11030-1
c37 N77-23482	NASA-CASE-LAR-11563-1		US-PATENT-APPL-SN-709849
	US-PATENT-APPL-SN-672815		US-PATENT-CLASS-3-1
	US-PATENT-CLASS-29-DIG.35		US-PATENT-CLASS-128-1R
	US-PATENT-CLASS-29-447		US-PATENT-CLASS-339,12R
	US-PATENT-CLASS-53-9		US-PATENT-4,025,964
	US-PATENT-CLASS-403-273	c33 N77-26385	NASA-CASE-LEW-11978-1
	US-PATENT-4,017,959		US-PATENT-APPL-SN-708658
c37 N77-23483	NASA-CASE-HFS-23088-1		US-PATENT-CLASS-29-597
	US-PATENT-APPL-SN-602617		US-PATENT-CLASS-29-622
	US-PATENT-CLASS-213-81		US-PATENT-CLASS-29-628
	US-PATENT-CLASS-214-1CM		US-PATENT-CLASS-29-630R
	US-PATENT-CLASS-244-161		US-PATENT-CLASS-240-32A
	US-PATENT-4,018,409		US-PATENT-4,023,266
c52 N77-23743	NASA-CASE-ARC-11120-1	c33 N77-26386	NASA-CASE-GSC-11824-1
	US-PATENT-APPL-SN-796256		US-PATENT-APPL-SN-583486

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-318-138	US-PATENT-CLASS-23-259
	US-PATENT-CLASS-318-227	US-PATENT-CLASS-23-292
	US-PATENT-CLASS-318-254	US-PATENT-CLASS-118-6
	US-PATENT-4,027,212	US-PATENT-CLASS-118-7
c33 N77-26387	NASA-CASE-LAR-11389-1	US-PATENT-CLASS-118-9
	US-PATENT-APPL-SN-229143	US-PATENT-CLASS-118-313
	US-PATENT-APPL-SN-340862	US-PATENT-CLASS-428-3
	US-PATENT-CLASS-310-111	US-PATENT-CLASS-427-4
	US-PATENT-CLASS-310-168	US-PATENT-4,029,470
	US-PATENT-CLASS-322-96	NASA-CASE-GSC-12082-2
	US-PATENT-3,849,720	US-PATENT-APPL-SN-798976
c36 N77-26477	NASA-CASE-NPO-13550-1	NASA-CASE-LAR-11310-1
	US-PATENT-APPL-SN-483301	US-PATENT-APPL-SN-394898
	US-PATENT-CLASS-250-281	US-PATENT-CLASS-60-226R
	US-PATENT-CLASS-250-282	US-PATENT-CLASS-60-263
	US-PATENT-CLASS-250-283	US-PATENT-CLASS-415-145
	US-PATENT-CLASS-250-423P	US-PATENT-4,033,119
	US-PATENT-4,031,389	c24 N77-28225
c52 N77-26796	NASA-CASE-GSC-12081-2	NASA-CASE-HSC-12631-1
	US-PATENT-APPL-SN-796258	US-PATENT-APPL-SN-568541
c71 N77-26919	NASA-CASE-NPO-13673-1	US-PATENT-CLASS-156-229
	US-PATENT-APPL-SN-613004	US-PATENT-CLASS-244-123
	US-PATENT-CLASS-330-5.5	US-PATENT-CLASS-428-141
	US-PATENT-CLASS-331-107A	US-PATENT-CLASS-428-161
	US-PATENT-CLASS-333-72	US-PATENT-CLASS-428-425
	US-PATENT-4,025,876	US-PATENT-CLASS-428-457
c74 N77-26942	NASA-CASE-GSC-12058-1	US-PATENT-CLASS-428-458
	US-PATENT-APPL-SN-680938	US-PATENT-4,032,089
	US-PATENT-CLASS-250-199	c26 N77-28265
	US-PATENT-4,025,783	NASA-CASE-LEW-11573-1
c07 N77-27116	NASA-CASE-LEW-12608-1	US-PATENT-APPL-SN-625733
	US-PATENT-APPL-SN-680067	US-PATENT-CLASS-228-190
	US-PATENT-CLASS-416-220R	US-PATENT-CLASS-228-194
	US-PATENT-CLASS-416-221	US-PATENT-CLASS-228-232
	US-PATENT-4,033,705	US-PATENT-4,033,504
c09 N77-27131	NASA-CASE-LAR-11883-1	c32 N77-28346
	US-PATENT-APPL-SN-662175	NASA-CASE-GSC-12053-1
	US-PATENT-CLASS-73-15R	US-PATENT-APPL-SN-667930
	US-PATENT-4,027,524	US-PATENT-CLASS-250-199
c24 N77-27187	NASA-CASE-HPS-22926-1	US-PATENT-CLASS-250-238
	US-PATENT-APPL-SN-557565	US-PATENT-4,033,882
	US-PATENT-CLASS-75-65R	c33 N77-28385
	US-PATENT-CLASS-75-135	NASA-CASE-LEW-12444-1
	US-PATENT-CLASS-75-139	US-PATENT-APPL-SN-583485
	US-PATENT-CLASS-164-60	US-PATENT-CLASS-123-148CB
	US-PATENT-4,029,500	US-PATENT-CLASS-123-148E
c24 N77-27188	NASA-CASE-LEW-12118-1	US-PATENT-CLASS-315-176
	US-PATENT-APPL-SN-616332	US-PATENT-4,033,316
	US-PATENT-CLASS-428-301	c35 N77-28470
	US-PATENT-CLASS-428-328	NASA-CASE-NPO-13948-1
	US-PATENT-CLASS-428-368	US-PATENT-APPL-SN-752748
	US-PATENT-CLASS-428-418	c37 N77-28486
	US-PATENT-CLASS-428-457	NASA-CASE-LEW-11458-1
	US-PATENT-CLASS-428-902	US-PATENT-APPL-SN-663008
	US-PATENT-CLASS-428-911	US-PATENT-CLASS-308-5R
	US-PATENT-4,029,838	US-PATENT-CLASS-308-9
c34 N77-27345	NASA-CASE-ARC-10974-1	US-PATENT-CLASS-308-73
	US-PATENT-APPL-SN-667010	US-PATENT-4,035,037
	US-PATENT-CLASS-73-189	c37 N77-28487
	US-PATENT-CLASS-73-228	NASA-CASE-HSC-14905-1
	US-PATENT-4,028,939	US-PATENT-APPL-SN-708795
c35 N77-27366	NASA-CASE-GSC-12059-1	US-PATENT-CLASS-128-DIG. 12
	US-PATENT-APPL-SN-680957	US-PATENT-CLASS-128-214F
	US-PATENT-CLASS-331-94.5D	US-PATENT-CLASS-222-61
	US-PATENT-CLASS-331-94.5T	US-PATENT-CLASS-222-95
	US-PATENT-CLASS-350-253	US-PATENT-4,033,479
	US-PATENT-4,030,047	c39 N77-28511
c35 N77-27367	NASA-CASE-NPO-11103-1	NASA-CASE-HPS-23299-1
	US-PATENT-APPL-SN-3654	US-PATENT-APPL-SN-700673
	US-PATENT-CLASS-73-84	US-PATENT-CLASS-73-67.7
	US-PATENT-3,623,359	US-PATENT-CLASS-73-88R
c35 N77-27368	NASA-CASE-HSC-12327-1	US-PATENT-4,033,182
	US-PATENT-APPL-SN-19572	c44 N77-28585
	US-PATENT-CLASS-73-362AR	NASA-CASE-NPO-13652-1
	US-PATENT-3,613,454	US-PATENT-APPL-SN-809890
c37 N77-27400	NASA-CASE-GSC-11063-1	c52 N77-28716
	US-PATENT-APPL-SN-41431	NASA-CASE-LEW-12258-1
	US-PATENT-CLASS-318-267	US-PATENT-APPL-SN-676433
	US-PATENT-CLASS-318-468	US-PATENT-CLASS-128-1R
	US-PATENT-CLASS-318-470	US-PATENT-CLASS-128-303R
	US-PATENT-CLASS-318-675	US-PATENT-4,033,349
	US-PATENT-3,628,113	c52 N77-28717
c39 N77-27432	NASA-CASE-LAR-12095-1	NASA-CASE-HSC-14623-1
	US-PATENT-APPL-SN-811401	US-PATENT-APPL-SN-637269
c51 N77-27677	NASA-CASE-LAR-11649-1	US-PATENT-CLASS-128-DIG. 4
	US-PATENT-APPL-SN-626942	US-PATENT-CLASS-128-2.1E
	US-PATENT-CLASS-8-3	US-PATENT-CLASS-128-410
	US-PATENT-CLASS-8-94.11	US-PATENT-4,033,334
	US-PATENT-CLASS-23-253A	c74 N77-28932
		NASA-CASE-GSC-11989-1
		US-PATENT-APPL-SN-645500
		US-PATENT-CLASS-350-162SF
		US-PATENT-CLASS-350-202
		US-PATENT-CLASS-350-299
		US-PATENT-4,035,062
		c74 N77-28933
		NASA-CASE-NPO-13707-1
		US-PATENT-APPL-SN-617202
		US-PATENT-CLASS-350-288
		US-PATENT-CLASS-350-310
		US-PATENT-CLASS-350-320
		US-PATENT-4,035,065

ACCESSION NUMBER INDEX

c26 N77-29260	NASA-CASE-NFS-23405-1 US-PATENT-APPL-SN-718267 US-PATENT-CLASS-228-124 US-PATENT-CLASS-228-263 US-PATENT-4,033,503	c33 N77-31404	NASA-CASE-ARC-10897-1 US-PATENT-APPL-SN-625781 US-PATENT-CLASS-323-93 US-PATENT-CLASS-324-60 US-PATENT-CLASS-340-200 US-PATENT-CLASS-340-347SH US-PATENT-4,040,041
c27 N77-30236	NASA-CASE-NPO-13620-1 US-PATENT-APPL-SN-666992 US-PATENT-CLASS-210-24 US-PATENT-CLASS-536-56 US-PATENT-CLASS-536-58 US-PATENT-CLASS-536-84 US-PATENT-CLASS-536-105 US-PATENT-CLASS-536-536-85 US-PATENT-4,041,233	c33 N77-31407	NASA-CASE-NFS-22880-2 US-PATENT-APPL-SN-829321
c27 N77-30237	NASA-CASE-NFS-23345-1 US-PATENT-APPL-SN-696989 US-PATENT-CLASS-106-292 US-PATENT-CLASS-106-296 US-PATENT-CLASS-106-299 US-PATENT-4,039,347	c35 N77-31465	NASA-CASE-NFS-23118-1 US-PATENT-APPL-SN-691256 US-PATENT-CLASS-356-212 US-PATENT-4,040,750
c32 N77-30308	NASA-CASE-GSC-12017-1 US-PATENT-APPL-SN-645510 US-PATENT-CLASS-325-30 US-PATENT-CLASS-325-42 US-PATENT-CLASS-325-65 US-PATENT-CLASS-325-473 US-PATENT-4,041,391	c37 N77-31497	NASA-CASE-NPO-13671-1 US-PATENT-APPL-SN-564622 US-PATENT-CLASS-123-DIG. 8 US-PATENT-CLASS-123-3 US-PATENT-CLASS-123-37 US-PATENT-CLASS-123-59E US-PATENT-CLASS-123-119A US-PATENT-CLASS-123-122AB US-PATENT-4,041,910
c32 N77-30309	NASA-CASE-GSC-11898-1 US-PATENT-APPL-SN-566494 US-PATENT-CLASS-179-15A US-PATENT-CLASS-179-15P US-PATENT-4,039,754	c44 N77-31601	NASA-CASE-LEW-12587-1 US-PATENT-APPL-SN-717319 US-PATENT-CLASS-52-51 US-PATENT-CLASS-52-173R US-PATENT-CLASS-136-89AC US-PATENT-CLASS-136-89P US-PATENT-4,040,867
c33 N77-30365	NASA-CASE-NPO-13812-1 US-PATENT-APPL-SN-694855 US-PATENT-CLASS-307-64 US-PATENT-CLASS-363-53 US-PATENT-CLASS-363-70 US-PATENT-4,039,925	c44 N77-31611	NASA-CASE-NFS-23518-2 US-PATENT-APPL-SN-830382
c34 N77-30399	NASA-CASE-NFS-19287-1 US-PATENT-APPL-SN-641802 US-PATENT-CLASS-60-259 US-PATENT-CLASS-62-55 US-PATENT-CLASS-137-207 US-PATENT-CLASS-137-209 US-PATENT-4,039,000	c45 N77-31668	NASA-CASE-HSC-16299-1 US-PATENT-APPL-SN-826203
c34 N77-30436	NASA-CASE-NFS-23175-1 US-PATENT-APPL-SN-667928 US-PATENT-CLASS-324-163 US-PATENT-CLASS-324-165 US-PATENT-CLASS-324-174 US-PATENT-CLASS-340-271 US-PATENT-CLASS-340-347P US-PATENT-CLASS-340-347SY US-PATENT-4,039,946	c60 N77-31800	NASA-CASE-GSC-12111-2 US-PATENT-APPL-SN-830272
c44 N77-30613	NASA-CASE-NFS-23349-1 US-PATENT-APPL-SN-823061	c07 N77-32148	NASA-CASE-LEW-12312-1 US-PATENT-APPL-SN-654787 US-PATENT-CLASS-416-135 US-PATENT-CLASS-416-190 US-PATENT-CLASS-416-193A US-PATENT-CLASS-416-241A US-PATENT-4,045,149
c52 N77-30736	NASA-CASE-LEW-12955-1 US-PATENT-APPL-SN-829318	c23 N77-32244	NASA-CASE-LEW-12053-2 US-PATENT-APPL-SN-796263
c52 N77-30737	NASA-CASE-IRN-12723-1 US-PATENT-APPL-SN-829317	c24 N77-32249	NASA-CASE-LEW-11930-3 US-PATENT-APPL-SN-764245
c54 N77-30749	NASA-CASE-KSC-11004-1 US-PATENT-APPL-SN-710032 US-PATENT-CLASS-3-2 US-PATENT-CLASS-3-21 US-PATENT-4,038,705	c25 N77-32255	NASA-CASE-NPO-13566-1 US-PATENT-APPL-SN-653316 US-PATENT-CLASS-204-DIG. 11 US-PATENT-CLASS-204-157. 1R US-PATENT-CLASS-204-158R US-PATENT-CLASS-204-162R US-PATENT-CLASS-250-527 US-PATENT-4,045,359
c54 N77-30751	NASA-CASE-ARC-11052-1 US-PATENT-APPL-SN-826202	c26 N77-32279	NASA-CASE-LEW-12906-1 US-PATENT-APPL-SN-691936 US-PATENT-CLASS-75-170 US-PATENT-CLASS-148-32 US-PATENT-4,045,255
c76 N77-30984	NASA-CASE-NPO-13969-2 US-PATENT-APPL-SN-820499	c26 N77-32280	NASA-CASE-LEW-12270-1 US-PATENT-APPL-SN-645507 US-PATENT-CLASS-75-170 US-PATENT-CLASS-148-32.5 US-PATENT-4,046,560
c05 N77-31130	NASA-CASE-ARC-11106-1 US-PATENT-APPL-SN-831633	c27 N77-32308	NASA-CASE-GSC-12110-1 US-PATENT-APPL-SN-682435 US-PATENT-CLASS-156-645 US-PATENT-CLASS-156-663 US-PATENT-4,046,619
c05 N77-31132	NASA-CASE-IAR-10706-2 US-PATENT-APPL-SN-730780	c27 N77-32313	NASA-CASE-NPO-14021-1 US-PATENT-APPL-SN-833636
c25 N77-31260	NASA-CASE-ARC-10814-2 US-PATENT-APPL-SN-831632	c32 N77-32342	NASA-CASE-NPO-13587-1 US-PATENT-APPL-SN-589119 US-PATENT-CLASS-343-5CH US-PATENT-CLASS-343-5DP US-PATENT-CLASS-343-10 US-PATENT-CLASS-343-100CL US-PATENT-4,045,795
c27 N77-31308	NASA-CASE-NPO-11609-2 US-PATENT-APPL-SN-228229 US-PATENT-APPL-SN-674700 US-PATENT-CLASS-210-DIG. 27 US-PATENT-CLASS-210-40 US-PATENT-CLASS-260-2.5A US-PATENT-CLASS-260-2.5AN US-PATENT-CLASS-260-2.5AY US-PATENT-CLASS-260-77.5AP US-PATENT-4,039,489	c33 N77-32402	NASA-CASE-NPO-14056-1 US-PATENT-APPL-SN-833637
c32 N77-31350	NASA-CASE-GSC-12075-1 US-PATENT-APPL-SN-562499 US-PATENT-CLASS-343-17.7 US-PATENT-4,042,926	c34 N77-32413	NASA-CASE-GSC-11998-1 US-PATENT-APPL-SN-579989 US-PATENT-CLASS-165-105 US-PATENT-4,046,190
		c34 N77-32435	NASA-CASE-LEW-12508-2 US-PATENT-APPL-SN-829319
		c35 N77-32454	NASA-CASE-LEW-12050-1 US-PATENT-APPL-SN-629457 US-PATENT-CLASS-136-202

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-136-236R		US-PATENT-CLASS-428-73
	US-PATENT-CLASS-136-240		US-PATENT-CLASS-428-116
	US-PATENT-4,045,247		US-PATENT-CLASS-428-138
c35 N77-32455	NASA-CASE-NPO-13792-1		US-PATENT-CLASS-428-902
	US-PATENT-APPL-SN-677351		US-PATENT-4,052,523
	US-PATENT-CLASS-324-57H	c25 N78-10224	NASA-CASE-LEW-12137-1
	US-PATENT-CLASS-324-59		US-PATENT-APPL-SN-672210
	US-PATENT-4,045,728		US-PATENT-CLASS-60-39.51R
c35 N77-32456	NASA-CASE-GSC-12143-1		US-PATENT-CLASS-165-105
	US-PATENT-APPL-SN-743249		US-PATENT-CLASS-431-158
	US-PATENT-CLASS-73-421.5R		US-PATENT-CLASS-431-352
	US-PATENT-CLASS-250-288		US-PATENT-4,052,144
	US-PATENT-4,046,012	c25 N78-10225	NASA-CASE-HSC-14831-1
c36 N77-32478	NASA-CASE-LEW-12164-1		US-PATENT-APPL-SN-685027
	US-PATENT-APPL-SN-511334		US-PATENT-CLASS-204-292
	US-PATENT-CLASS-350-162SP		US-PATENT-CLASS-210-63R
	US-PATENT-4,043,674		US-PATENT-CLASS-210-71
c37 N77-32499	NASA-CASE-HSC-19535-1		US-PATENT-CLASS-252-472
	US-PATENT-APPL-SN-641784		US-PATENT-CLASS-427-229
	US-PATENT-CLASS-292-110		US-PATENT-4,052,302
	US-PATENT-4,045,063	c33 N78-10375	NASA-CASE-HSC-14916-1
c37 N77-32500	NASA-CASE-LEW-12527-1		US-PATENT-APPL-SN-739914
	US-PATENT-APPL-SN-595747		US-PATENT-CLASS-179-107R
	US-PATENT-CLASS-290-52		US-PATENT-CLASS-179-175.1A
	US-PATENT-CLASS-308-72		US-PATENT-CLASS-330-2
	US-PATENT-CLASS-308-195		US-PATENT-4,049,930
	US-PATENT-4,046,434	c33 N78-10376	NASA-CASE-HFS-23280-1
c37 N77-32501	NASA-CASE-LEW-12477-1		US-PATENT-APPL-SN-706425
	US-PATENT-APPL-SN-595745		US-PATENT-CLASS-318-200
	US-PATENT-CLASS-290-52		US-PATENT-CLASS-318-227
	US-PATENT-CLASS-308-195		US-PATENT-CLASS-318-230
	US-PATENT-4,046,435		US-PATENT-4,052,648
c44 N77-32580	NASA-CASE-NPO-13675-1	c33 N78-10377	NASA-CASE-NPO-13872-1
	US-PATENT-APPL-SN-658132		US-PATENT-APPL-SN-742034
	US-PATENT-CLASS-204-157.1R		US-PATENT-CLASS-363-57
	US-PATENT-CLASS-250-527		US-PATENT-CLASS-363-89
	US-PATENT-4,045,315		US-PATENT-4,052,659
c44 N77-32581	NASA-CASE-NPO-13510-1	c35 N78-10428	NASA-CASE-HSC-14757-1
	US-PATENT-APPL-SN-536786		US-PATENT-APPL-SN-625734
	US-PATENT-CLASS-62-4		US-PATENT-CLASS-60-560
	US-PATENT-CLASS-126-263		US-PATENT-CLASS-60-574
	US-PATENT-CLASS-165-2		US-PATENT-CLASS-141-4
	US-PATENT-CLASS-165-107		US-PATENT-CLASS-141-197
	US-PATENT-4,044,821		US-PATENT-CLASS-417-225
c44 N77-32582	NASA-CASE-NPO-13810-1		US-PATENT-4,051,877
	US-PATENT-APPL-SN-681096	c35 N78-10429	NASA-CASE-NPO-13772-1
	US-PATENT-CLASS-52-117		US-PATENT-APPL-SN-675351
	US-PATENT-CLASS-60-641		US-PATENT-CLASS-250-310
	US-PATENT-CLASS-126-270		US-PATENT-CLASS-250-398
	US-PATENT-CLASS-126-271		US-PATENT-4,052,614
	US-PATENT-4,044,753	c36 N78-10445	NASA-CASE-GSC-12237-1
c44 N77-32583	NASA-CASE-NPO-13736-1		US-PATENT-APPL-SN-837795
	US-PATENT-APPL-SN-681017	c37 N78-10467	NASA-CASE-LEW-12321-1
	US-PATENT-CLASS-52-2		US-PATENT-APPL-SN-596641
	US-PATENT-CLASS-350-295		US-PATENT-CLASS-60-39.28R
	US-PATENT-CLASS-350-320		US-PATENT-CLASS-60-39.66
	US-PATENT-CLASS-427-47		US-PATENT-CLASS-123-41.33
	US-PATENT-CLASS-427-130		US-PATENT-CLASS-123-122E
	US-PATENT-4,046,462		US-PATENT-CLASS-137-104
c54 N77-32721	NASA-CASE-ARC-10756-1		US-PATENT-CLASS-415-180
	US-PATENT-APPL-SN-436313		US-PATENT-4,041,697
	US-PATENT-CLASS-2-2.1A	c37 N78-10468	NASA-CASE-LEW-12313-1
	US-PATENT-CLASS-214-18C		US-PATENT-APPL-SN-581751
	US-PATENT-CLASS-214-1CM		US-PATENT-CLASS-416-135
	US-PATENT-4,046,262		US-PATENT-CLASS-416-141
c54 N77-32722	NASA-CASE-HSC-14771-1		US-PATENT-CLASS-416-220R
	US-PATENT-APPL-SN-688854		US-PATENT-CLASS-416-248
	US-PATENT-CLASS-55-179		US-PATENT-4,047,840
	US-PATENT-CLASS-55-269	c39 N78-10493	NASA-CASE-NPO-13731-1
	US-PATENT-CLASS-165-166		US-PATENT-APPL-SN-653682
	US-PATENT-4,046,529		US-PATENT-CLASS-73-15.6
c54 N77-32723	NASA-CASE-NPO-13906-1		US-PATENT-CLASS-73-91
	US-PATENT-APPL-SN-837259		US-PATENT-4,030,348
c60 N77-32731	NASA-CASE-GSC-11839-3	c43 N78-10529	NASA-CASE-GSC-11976-1
	US-PATENT-APPL-SN-468614		US-PATENT-APPL-SN-677352
	US-PATENT-CLASS-250-199		US-PATENT-CLASS-324-58.5B
	US-PATENT-CLASS-340-347AD		US-PATENT-4,052,666
	US-PATENT-CLASS-350-96R	c44 N78-10554	NASA-CASE-NPO-13734-1
	US-PATENT-4,045,792		US-PATENT-APPL-SN-680939
c76 N77-32919	NASA-CASE-HFS-23001-1		US-PATENT-CLASS-126-271
	US-PATENT-APPL-SN-610801		US-PATENT-CLASS-237-1A
	US-PATENT-CLASS-156-DIG.62		US-PATENT-CLASS-350-293
	US-PATENT-CLASS-156-601		US-PATENT-CLASS-350-299
	US-PATENT-CLASS-156-619		US-PATENT-4,051,834
	US-PATENT-CLASS-156-620	c52 N78-10686	NASA-CASE-ARC-10916-1
	US-PATENT-4,046,617		US-PATENT-APPL-SN-701448
c24 N78-10214	NASA-CASE-IAR-11898-1		US-PATENT-CLASS-3-1.2
	US-PATENT-APPL-SN-723264		US-PATENT-CLASS-3-15
			US-PATENT-CLASS-3-29

ACCESSION NUMBER INDEX

c60 N78-10709 US-PATENT-4,051,558
 NASA-CASE-GSC-11839-2
 US-PATENT-APPL-SN-468614
 US-PATENT-APPL-SN-657996
 US-PATENT-CLASS-340-173LM
 US-PATENT-CLASS-350-96R
 US-PATENT-CLASS-356-169
 US-PATENT-4,052,705
 c71 N78-10837 NASA-CASE-NPO-13802-1
 US-PATENT-APPL-SN-658133
 US-PATENT-CLASS-65-DIG.4
 US-PATENT-CLASS-65-DIG.7
 US-PATENT-CLASS-65-2
 US-PATENT-CLASS-65-4B
 US-PATENT-CLASS-65-32
 US-PATENT-CLASS-65-87
 US-PATENT-CLASS-65-102
 US-PATENT-CLASS-73-505
 US-PATENT-CLASS-264-23
 US-PATENT-CLASS-264-345
 US-PATENT-4,052,181
 c37 N78-11399 NASA-CASE-HSC-16239-1
 US-PATENT-APPL-SN-847276
 c52 N78-11692 NASA-CASE-ARC-11118-1
 US-PATENT-APPL-SN-850504
 c35 N78-12390 NASA-CASE-HSC-14773-1
 US-PATENT-APPL-SN-612966
 US-PATENT-CLASS-55-3
 US-PATENT-CLASS-55-26-9
 US-PATENT-CLASS-55-100
 US-PATENT-CLASS-62-50
 US-PATENT-CLASS-62-51AR
 US-PATENT-CLASS-137-197
 US-PATENT-CLASS-210-222
 US-PATENT-4,027,498
 c15 N78-13110 NASA-CASE-ARC-11104-1
 US-PATENT-APPL-SN-854920
 c33 N78-13320 NASA-CASE-HPS-23274-1
 US-PATENT-APPL-SN-714158
 US-PATENT-CLASS-307-306
 US-PATENT-CLASS-338-325
 US-PATENT-CLASS-357-4
 US-PATENT-CLASS-357-5
 US-PATENT-CLASS-357-73
 US-PATENT-4,055,847
 c38 N78-13380 NASA-CASE-GSC-12253-1
 US-PATENT-APPL-SN-853677
 c35 N78-13400 NASA-CASE-ARC-10639-1
 US-PATENT-APPL-SN-643043
 US-PATENT-CLASS-250-336
 US-PATENT-CLASS-250-343
 US-PATENT-CLASS-250-351
 US-PATENT-4,055,764
 c37 N78-13436 NASA-CASE-LEW-12083-1
 US-PATENT-APPL-SN-659882
 US-PATENT-CLASS-250-499
 US-PATENT-CLASS-313-615
 US-PATENT-CLASS-427-124
 US-PATENT-CLASS-427-126
 US-PATENT-CLASS-427-248E
 US-PATENT-CLASS-427-250
 US-PATENT-CLASS-427-255
 US-PATENT-4,055,686
 c37 N78-13441 NASA-CASE-NPO-13652-2
 US-PATENT-APPL-SN-848794
 c44 N78-13526 NASA-CASE-NPO-13482-1
 US-PATENT-APPL-SN-495021
 US-PATENT-CLASS-136-895J
 US-PATENT-CLASS-357-15
 US-PATENT-CLASS-357-16
 US-PATENT-CLASS-357-30
 US-PATENT-4,053,918
 c44 N78-13556 NASA-CASE-HPS-23727-1
 US-PATENT-APPL-SN-856465
 c74 N78-13874 NASA-CASE-GSC-12088-1
 US-PATENT-APPL-SN-648700
 US-PATENT-CLASS-356-103
 US-PATENT-CLASS-356-104
 US-PATENT-4,053,229
 c76 N78-13917 NASA-CASE-NPO-14078-1
 US-PATENT-APPL-SN-856466
 c24 N78-14096 NASA-CASE-ARC-11042-1
 US-PATENT-APPL-SN-734902
 US-PATENT-CLASS-60-836
 US-PATENT-CLASS-252-8.1
 US-PATENT-4,061,579
 c25 N78-14104 NASA-CASE-ARC-10991-1
 US-PATENT-APPL-SN-744574
 US-PATENT-CLASS-204-180G

US-PATENT-CLASS-204-299R
 US-PATENT-4,061,561
 c27 N78-14164 NASA-CASE-NPO-13867-1
 US-PATENT-APPL-SN-692284
 US-PATENT-CLASS-96-87A
 US-PATENT-CLASS-260-DIG.15
 US-PATENT-CLASS-427-164
 US-PATENT-CLASS-428-411
 US-PATENT-CLASS-428-522
 US-PATENT-CLASS-428-922
 US-PATENT-4,061,834
 c35 N78-14364 NASA-CASE-ARC-11046-1
 US-PATENT-APPL-SN-712419
 US-PATENT-CLASS-73-180
 US-PATENT-CLASS-340-27SS
 US-PATENT-4,061,029
 c36 N78-14380 NASA-CASE-HPS-19259-1
 US-PATENT-APPL-SN-732630
 US-PATENT-CLASS-250-571
 US-PATENT-CLASS-356-159
 US-PATENT-CLASS-356-160
 US-PATENT-CLASS-356-199
 US-PATENT-4,061,427
 c43 N78-14452 NASA-CASE-LEW-12217-1
 US-PATENT-APPL-SN-763753
 US-PATENT-CLASS-166-248
 US-PATENT-CLASS-166-259
 US-PATENT-4,061,190
 c44 N78-14625 NASA-CASE-LEW-12039-1
 US-PATENT-APPL-SN-687822
 US-PATENT-CLASS-320-6
 US-PATENT-CLASS-320-15
 US-PATENT-CLASS-320-18
 US-PATENT-CLASS-320-40
 US-PATENT-4,061,955
 c52 N78-14773 NASA-CASE-LEW-12668-1
 US-PATENT-APPL-SN-677353
 US-PATENT-CLASS-128-305
 US-PATENT-4,061,146
 c54 N78-14784 NASA-CASE-HSC-14632-1
 US-PATENT-APPL-SN-571459
 US-PATENT-CLASS-23-253A
 US-PATENT-CLASS-204-180P
 US-PATENT-CLASS-204-301
 US-PATENT-CLASS-210-96H
 US-PATENT-CLASS-210-192
 US-PATENT-4,061,570
 c71 N78-14867 NASA-CASE-LAR-12106-1
 US-PATENT-APPL-SN-740156
 US-PATENT-CLASS-73-646
 US-PATENT-CLASS-330-52
 US-PATENT-4,061,041
 c74 N78-14889 NASA-CASE-KSC-11047-1
 US-PATENT-APPL-SN-715485
 US-PATENT-CLASS-179-91R
 US-PATENT-CLASS-250-199
 US-PATENT-CLASS-358-142
 US-PATENT-4,061,577
 c24 N78-15180 NASA-CASE-ARC-10913-1
 US-PATENT-APPL-SN-698646
 US-PATENT-CLASS-106-15PP
 US-PATENT-CLASS-260-2.5N
 US-PATENT-CLASS-260-2.5B
 US-PATENT-CLASS-428-71
 US-PATENT-CLASS-428-73
 US-PATENT-CLASS-428-117
 US-PATENT-CLASS-428-290
 US-PATENT-CLASS-428-920
 US-PATENT-4,061,812
 c25 N78-15210 NASA-CASE-LAR-12046-1
 US-PATENT-APPL-SN-755310
 US-PATENT-CLASS-23-230PC
 US-PATENT-CLASS-23-232E
 US-PATENT-CLASS-23-232R
 US-PATENT-CLASS-73-23
 US-PATENT-4,062,650
 c27 N78-15276 NASA-CASE-LEW-12053-1
 US-PATENT-APPL-SN-513613
 US-PATENT-CLASS-260-2R
 US-PATENT-CLASS-526-193
 US-PATENT-CLASS-526-225
 US-PATENT-CLASS-544-193
 US-PATENT-4,061,856
 c32 N78-15323 NASA-CASE-NPO-13836-1
 US-PATENT-APPL-SN-699002
 US-PATENT-CLASS-178-69.1
 US-PATENT-CLASS-325-58
 US-PATENT-CLASS-325-63
 US-PATENT-CLASS-343-179

ACCESSION NUMBER INDEX

c35 N78-15461 US-PATENT-4,061,974
NASA-CASE-NPO-13808-1
US-PATENT-APPL-SN-675328
US-PATENT-CLASS-250-322
US-PATENT-CLASS-250-416TV
US-PATENT-4,063,092
c39 N78-15512 NASA-CASE-LAR-12016-1
US-PATENT-APPL-SN-754066
US-PATENT-CLASS-73-88P
US-PATENT-CLASS-73-579
US-PATENT-CLASS-73-630
US-PATENT-4,062,227
c44 N78-15560 NASA-CASE-LAR-12009-1
US-PATENT-APPL-SN-717320
US-PATENT-CLASS-126-270
US-PATENT-CLASS-126-400
US-PATENT-CLASS-237-1A
US-PATENT-4,062,347
c74 N78-15879 NASA-CASE-LAR-10385-3
US-PATENT-APPL-SN-38816
US-PATENT-APPL-SN-239803
US-PATENT-APPL-SN-370999
US-PATENT-CLASS-350-1
US-PATENT-CLASS-428-334
US-PATENT-CLASS-428-336
US-PATENT-CLASS-428-426
US-PATENT-CLASS-428-428
US-PATENT-3,779,788
US-PATENT-4,062,996
c74 N78-15880 NASA-CASE-NFS-22409-2
US-PATENT-APPL-SN-445398
US-PATENT-APPL-SN-636193
US-PATENT-CLASS-250-272
US-PATENT-CLASS-250-320
US-PATENT-4,063,088
c74 N78-15883 NASA-CASE-LAR-12007-1
US-PATENT-APPL-SN-853676
c37 N78-16369 NASA-CASE-NPO-13619-1
US-PATENT-APPL-SN-572990
US-PATENT-CLASS-74-81
US-PATENT-CLASS-74-83
US-PATENT-CLASS-185-38
US-PATENT-4,062,245
c39 N78-16387 NASA-CASE-LAR-11490-1
US-PATENT-APPL-SN-707125
US-PATENT-CLASS-358-106
US-PATENT-4,063,282
c04 N78-17031 NASA-CASE-NXP-01458
US-PATENT-APPL-SN-160093
US-PATENT-CLASS-235-70
US-PATENT-3,229,905
c07 N78-17055 NASA-CASE-LEW-12317-1
US-PATENT-APPL-SN-581750
US-PATENT-CLASS-60-204
US-PATENT-CLASS-60-226R
US-PATENT-CLASS-60-271
US-PATENT-4,068,469
c07 N78-17056 NASA-CASE-LEW-12390-1
US-PATENT-APPL-SN-522109
US-PATENT-CLASS-60-226R
US-PATENT-CLASS-74-385
US-PATENT-CLASS-74-417
US-PATENT-4,068,470
c08 N78-17070 NASA-CASE-LAR-12215-1
US-PATENT-APPL-SN-858762
c17 N78-17140 NASA-CASE-HQN-10880-1
US-PATENT-APPL-SN-595254
US-PATENT-CLASS-325-66
US-PATENT-CLASS-325-118
US-PATENT-CLASS-343-112R
US-PATENT-CLASS-343-225
US-PATENT-CLASS-362-269
US-PATENT-4,067,015
c24 N78-17149 NASA-CASE-LAR-11898-2
US-PATENT-APPL-SN-723264
US-PATENT-APPL-SN-799024
US-PATENT-CLASS-156-245
US-PATENT-CLASS-156-285
US-PATENT-CLASS-156-289
US-PATENT-CLASS-428-116
US-PATENT-CLASS-428-902
US-PATENT-4,063,981
c24 N78-17150 NASA-CASE-LAR-12019-1
US-PATENT-APPL-SN-792067
US-PATENT-CLASS-156-154
US-PATENT-CLASS-156-264
US-PATENT-CLASS-156-285
US-PATENT-CLASS-156-286
US-PATENT-CLASS-156-289
US-PATENT-CLASS-156-300
US-PATENT-CLASS-156-306
US-PATENT-CLASS-156-311
US-PATENT-CLASS-264-90
US-PATENT-CLASS-264-157
US-PATENT-CLASS-428-294
US-PATENT-CLASS-428-302
US-PATENT-4,065,340
c25 N78-17171 NASA-CASE-LAR-11922-1
US-PATENT-APPL-SN-856460
c27 N78-17205 NASA-CASE-LAR-12181-1
US-PATENT-APPL-SN-532784
US-PATENT-APPL-SN-734901
US-PATENT-CLASS-156-309
US-PATENT-CLASS-156-331
US-PATENT-CLASS-260-30.4N
US-PATENT-CLASS-260-32.2R
US-PATENT-CLASS-260-32.6NT
US-PATENT-CLASS-260-33.4R
US-PATENT-4,065,345
c27 N78-17206 NASA-CASE-LAR-11902-1
US-PATENT-APPL-SN-672695
US-PATENT-CLASS-60-200A
US-PATENT-CLASS-75-229
US-PATENT-CLASS-75-239
US-PATENT-CLASS-75-241
US-PATENT-CLASS-106-43
US-PATENT-4,067,742
c27 N78-17213 NASA-CASE-MSC-14331-2
US-PATENT-APPL-SN-374421
US-PATENT-APPL-SN-657907
US-PATENT-CLASS-260-75NH
US-PATENT-CLASS-260-75NK
US-PATENT-CLASS-260-75NT
US-PATENT-CLASS-260-77.5AN
US-PATENT-CLASS-260-77.5AN
US-PATENT-CLASS-260-77.5AP
US-PATENT-CLASS-260-77.5AT
US-PATENT-CLASS-260-77.55P
US-PATENT-3,956,233
US-PATENT-4,069,212
c27 N78-17214 NASA-CASE-NPO-10557
US-PATENT-APPL-SN-759220
US-PATENT-CLASS-260-67
US-PATENT-3,538,053
c27 N78-17215 NASA-CASE-NPO-63769-1
US-PATENT-APPL-SN-674194
US-PATENT-CLASS-3-3.9
US-PATENT-CLASS-128-92C
US-PATENT-CLASS-128-92G
US-PATENT-CLASS-260-42.17
US-PATENT-4,064,566
c27 N78-17217 NASA-CASE-GSC-12303-1
US-PATENT-APPL-SN-862880
c27 N78-17218 NASA-CASE-LAR-12054-1
US-PATENT-APPL-SN-839963
c28 N78-17230 NASA-CASE-NPO-14260
US-PATENT-APPL-SN-861390
c31 N78-17237 NASA-CASE-LEW-11981-1
US-PATENT-APPL-SN-672220
US-PATENT-CLASS-62-376
US-PATENT-CLASS-62-514R
US-PATENT-CLASS-313-22
US-PATENT-4,068,495
c31 N78-17238 NASA-CASE-NPO-11978
US-PATENT-APPL-SN-264268
US-PATENT-CLASS-313-175
US-PATENT-CLASS-313-176
US-PATENT-CLASS-313-180
US-PATENT-CLASS-313-184
US-PATENT-CLASS-313-224
US-PATENT-3,769,544
c33 N78-17293 NASA-CASE-XLE-06094
US-PATENT-APPL-SN-523632
US-PATENT-CLASS-315-22
US-PATENT-3,423,627
c33 N78-17294 NASA-CASE-MSC-11235
US-PATENT-APPL-SN-698239
US-PATENT-CLASS-307-270
US-PATENT-CLASS-307-297
US-PATENT-CLASS-323-4
US-PATENT-CLASS-328-172
US-PATENT-3,573,504
c33 N78-17295 NASA-CASE-XGS-09186
US-PATENT-APPL-SN-669911
US-PATENT-CLASS-323-18
US-PATENT-3,475,675
c33 N78-17296 NASA-CASE-GSC-10135
US-PATENT-APPL-SN-764823

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-307-53		US-PATENT-CLASS-126-263
	US-PATENT-CLASS-307-69		US-PATENT-CLASS-126-271
	US-PATENT-CLASS-320-53		US-PATENT-CLASS-165-2
	US-PATENT-CLASS-323-19		US-PATENT-CLASS-237-1A
	US-PATENT-3,600,599		US-PATENT-4,065,053
c33 N78-17297	NASA-CASE-GSC-12387-1	c44 N78-17468	NASA-CASE-NFS-23540-1
	US-PATENT-APPL-SN-868249		US-PATENT-APPL-SN-863773
c34 N78-17335	NASA-CASE-LEW-12508-1	c46 N78-17529	NASA-CASE-NPO-14124-1
	US-PATENT-APPL-SN-746580		US-PATENT-APPL-SN-863024
	US-PATENT-CLASS-62-3	c54 N78-17675	NASA-CASE-ARC-11101-1
	US-PATENT-4,069,028		US-PATENT-APPL-SN-753976
c34 N78-17336	NASA-CASE-ARC-10198		US-PATENT-CLASS-2-2.1A
	US-PATENT-APPL-SN-42088		US-PATENT-CLASS-36-92
	US-PATENT-CLASS-165-105		US-PATENT-CLASS-36-119
	US-PATENT-CLASS-165-134		US-PATENT-4,064,642
	US-PATENT-3,777,811	c54 N78-17676	NASA-CASE-NFS-23311-1
c34 N78-17337	NASA-CASE-ARC-10199		US-PATENT-APPL-SN-708800
	US-PATENT-APPL-SN-824628		US-PATENT-CLASS-3-12.5
	US-PATENT-CLASS-2-2.1		US-PATENT-CLASS-74-515E
	US-PATENT-CLASS-165-32		US-PATENT-CLASS-214-1CH
	US-PATENT-CLASS-165-96		US-PATENT-4,068,763
	US-PATENT-CLASS-165-105	c54 N78-17677	NASA-CASE-NFS-13054
	US-PATENT-3,543,839		US-PATENT-APPL-SN-585217
c35 N78-17357	NASA-CASE-NFS-23194-1		US-PATENT-CLASS-2-16.1
	US-PATENT-APPL-SN-629458		US-PATENT-3,490,074
	US-PATENT-CLASS-350-3.5	c54 N78-17678	NASA-CASE-XNS-04670
	US-PATENT-4,065,202		US-PATENT-APPL-SN-535169
c35 N78-17358	NASA-CASE-HSC-11242		US-PATENT-CLASS-2-2.1
	US-PATENT-APPL-SN-636796		US-PATENT-3,488,771
	US-PATENT-CLASS-73-67.2	c54 N78-17679	NASA-CASE-XNS-04928
	US-PATENT-3,492,858		US-PATENT-APPL-SN-584914
c35 N78-17359	NASA-CASE-NPO-11150		US-PATENT-CLASS-98-1
	US-PATENT-APPL-SN-858950		US-PATENT-3,487,765
	US-PATENT-CLASS-338-36	c54 N78-17680	NASA-CASE-XNS-09653
	US-PATENT-CLASS-338-99		US-PATENT-APPL-SN-538863
	US-PATENT-CLASS-338-100		US-PATENT-CLASS-2-6
	US-PATENT-3,641,470		US-PATENT-3,359,568
c36 N78-17366	NASA-CASE-NFS-22597	c60 N78-17691	NASA-CASE-GSC-12044-1
	US-PATENT-APPL-SN-395895		US-PATENT-APPL-SN-631341
	US-PATENT-CLASS-315-108		US-PATENT-CLASS-340-347DD
	US-PATENT-CLASS-331-94.56		US-PATENT-4,069,478
	US-PATENT-CLASS-331-94.5T	c74 N78-17865	NASA-CASE-HSC-12618-1
	US-PATENT-3,882,417		US-PATENT-APPL-SN-651007
c37 N78-17383	NASA-CASE-HSC-19666-1		US-PATENT-CLASS-350-159
	US-PATENT-APPL-SN-721150		US-PATENT-CLASS-358-41
	US-PATENT-CLASS-51-235		US-PATENT-CLASS-358-55
	US-PATENT-CLASS-118-50		US-PATENT-CLASS-358-225
	US-PATENT-CLASS-118-500		US-PATENT-4,067,043
	US-PATENT-CLASS-248-36.3	c74 N78-17866	NASA-CASE-LAR-11711-1
	US-PATENT-CLASS-269-21		US-PATENT-APPL-SN-674195
	US-PATENT-CLASS-279-3		US-PATENT-CLASS-250-201
	US-PATENT-4,066,039		US-PATENT-CLASS-350-204
c37 N78-17384	NASA-CASE-LEW-12916-1		US-PATENT-CLASS-356-28
	US-PATENT-APPL-SN-583056		US-PATENT-4,063,814
	US-PATENT-CLASS-60-261	c74 N78-17867	NASA-CASE-NPO-13759-1
	US-PATENT-CLASS-60-262		US-PATENT-APPL-SN-718266
	US-PATENT-CLASS-60-271		US-PATENT-CLASS-250-344
	US-PATENT-4,064,692		US-PATENT-CLASS-356-204
c37 N78-17385	NASA-CASE-WOO-00625		US-PATENT-CLASS-356-246
	US-PATENT-APPL-SN-362278		US-PATENT-4,067,653
	US-PATENT-CLASS-74-800	c05 N78-18045	NASA-CASE-LAR-11688-1
	US-PATENT-3,306,134		US-PATENT-APPL-SN-878540
c37 N78-17386	NASA-CASE-NPO-10151	c07 N78-18066	NASA-CASE-LEW-12389-2
	US-PATENT-APPL-SN-365244		US-PATENT-CLASS-60-39.31
	US-PATENT-CLASS-328-233		US-PATENT-CLASS-60-226R
	US-PATENT-3,387,218		US-PATENT-CLASS-244-53A
c37 N78-17391	NASA-CASE-NPO-14170		US-PATENT-CLASS-244-54
	US-PATENT-APPL-SN-860404		US-PATENT-4,055,041
c38 N78-17395	NASA-CASE-NPO-13283	c07 N78-18067	NASA-CASE-LEW-12917-1
	US-PATENT-APPL-SN-401225		US-PATENT-APPL-SN-583055
	US-PATENT-CLASS-235-151.3		US-PATENT-CLASS-60-204
	US-PATENT-CLASS-235-156		US-PATENT-CLASS-60-262
	US-PATENT-CLASS-235-181		US-PATENT-4,069,661
	US-PATENT-CLASS-250-572	c09 N78-18083	NASA-CASE-ARC-10903-1
	US-PATENT-CLASS-356-237		US-PATENT-APPL-SN-623536
	US-PATENT-3,908,118		US-PATENT-CLASS-35-12N
c38 N78-17396	NASA-CASE-NPO-13282		US-PATENT-CLASS-358-104
	US-PATENT-APPL-SN-401224		US-PATENT-4,055,004
	US-PATENT-CLASS-235-151.3	c26 N78-18182	NASA-CASE-LEW-12095-1
	US-PATENT-CLASS-235-156		US-PATENT-APPL-SN-651009
	US-PATENT-CLASS-250-563		US-PATENT-CLASS-75-124
	US-PATENT-CLASS-250-572		US-PATENT-CLASS-75-126D
	US-PATENT-CLASS-356-165		US-PATENT-CLASS-75-126F
	US-PATENT-CLASS-356-237		US-PATENT-CLASS-75-128G
	US-PATENT-3,909,602		US-PATENT-CLASS-75-128T
c44 N78-17460	NASA-CASE-NPO-13579-1		US-PATENT-4,055,416
	US-PATENT-APPL-SN-598969	c26 N78-18183	NASA-CASE-LEW-12905-1
	US-PATENT-CLASS-60-641		US-PATENT-APPL-SN-684171
	US-PATENT-CLASS-62-4		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-75-170		US-PATENT-CLASS-427-160
	US-PATENT-CLASS-148-32		US-PATENT-CLASS-428-652
	US-PATENT-CLASS-148-32.5		US-PATENT-CLASS-428-667
	US-PATENT-4,055,447		US-PATENT-CLASS-428-679
c32 N78-18266	NASA-CASE-NPO-14035-1	c44 N78-19609	US-PATENT-4,055,707
	US-PATENT-APPL-SN-858767		NASA-CASE-NPO-14068-1
c33 N78-18308	NASA-CASE-FRC-10090-1	c54 N78-19773	US-PATENT-APPL-SN-858769
	US-PATENT-APPL-SN-737974		NASA-CASE-MFS-23692-1
	US-PATENT-CLASS-307-265	c71 N78-19898	US-PATENT-APPL-SN-885061
	US-PATENT-CLASS-307-350		NASA-CASE-NPO-14134-1
	US-PATENT-CLASS-307-360	c72 N78-19907	US-PATENT-APPL-SN-861392
	US-PATENT-CLASS-328-150		NASA-CASE-LEW-12081-2
	US-PATENT-4,055,777	c73 N78-19920	US-PATENT-APPL-SN-837794
c33 N78-18313	NASA-CASE-GSC-12171-1		NASA-CASE-HQN-10841-1
	US-PATENT-APPL-SN-878542		US-PATENT-APPL-SN-560891
c34 N78-18355	NASA-CASE-LEW-12554-1		US-PATENT-CLASS-176-39
	US-PATENT-APPL-SN-686449		US-PATENT-CLASS-330-4.3
	US-PATENT-CLASS-427-34	c02 N78-22026	US-PATENT-4,075,057
	US-PATENT-CLASS-427-405		NASA-CASE-KSC-11042-1
	US-PATENT-CLASS-427-419A		US-PATENT-APPL-SN-862878
	US-PATENT-CLASS-427-423	c18 N78-22146	NASA-CASE-HSC-16217-1
	US-PATENT-CLASS-428-633		US-PATENT-APPL-SN-893383
	US-PATENT-CLASS-428-652	c23 N78-22154	NASA-CASE-ARC-11097-1
	US-PATENT-CLASS-428-667		US-PATENT-APPL-SN-891872
	US-PATENT-4,055,705	c23 N78-22155	NASA-CASE-ARC-11097-2
c35 N78-18390	NASA-CASE-MFS-23008-1		US-PATENT-APPL-SN-891875
	US-PATENT-APPL-SN-665734	c23 N78-22156	NASA-CASE-ARC-11107-1
	US-PATENT-CLASS-73-DIG. 11		US-PATENT-APPL-SN-883961
	US-PATENT-CLASS-73-28	c23 N78-22157	NASA-CASE-LEW-12972-1
	US-PATENT-CLASS-73-432PS		US-PATENT-APPL-SN-897829
	US-PATENT-CLASS-73-432R	c24 N78-22162	NASA-CASE-LAR-12065-1
	US-PATENT-4,055,089		US-PATENT-APPL-SN-889671
c35 N78-18391	NASA-CASE-NPO-13687-1	c24 N78-22163	NASA-CASE-LEW-12493-1
	US-PATENT-APPL-SN-641803		US-PATENT-APPL-SN-893857
	US-PATENT-CLASS-356-106S	c25 N78-22186	NASA-CASE-NPO-14382-1
	US-PATENT-CLASS-356-110		US-PATENT-APPL-SN-891373
	US-PATENT-4,053,231	c25 N78-22187	NASA-CASE-NPO-14384-1
c35 N78-18393	NASA-CASE-FRC-10093-1		US-PATENT-APPL-SN-880728
	US-PATENT-APPL-SN-878539	c33 N78-22298	NASA-CASE-HSC-16697-1
c35 N78-18394	NASA-CASE-LAR-11999-1		US-PATENT-APPL-SN-885067
	US-PATENT-APPL-SN-876299	c33 N78-22299	NASA-CASE-NPO-14000-1
c35 N78-18395	NASA-CASE-NPO-13999-1		US-PATENT-APPL-SN-876431
	US-PATENT-APPL-SN-858596	c34 N78-22328	NASA-CASE-KSC-11064-1
c36 N78-18410	NASA-CASE-NPO-13801-1		US-PATENT-APPL-SN-897840
	US-PATENT-APPL-SN-708796	c35 N78-22347	NASA-CASE-NPO-14162-1
	US-PATENT-CLASS-330-4		NASA-CASE-NPO-14167-1
	US-PATENT-CLASS-332-7.5		NASA-CASE-NPO-14169-1
	US-PATENT-4,055,810		US-PATENT-APPL-SN-893903
c51 N78-18674	NASA-CASE-HSC-16260-1	c35 N78-22348	NASA-CASE-NPO-14219-1
	US-PATENT-APPL-SN-876440		US-PATENT-APPL-SN-888432
c54 N78-18761	NASA-CASE-HSC-10954-1	c36 N78-22359	NASA-CASE-NPO-14258-1
	US-PATENT-APPL-SN-529884		US-PATENT-APPL-SN-876432
	US-PATENT-CLASS-2-2.1	c37 N78-22374	NASA-CASE-LAR-11695-1
	US-PATENT-3,514,785		US-PATENT-APPL-SN-893865
c54 N78-18762	NASA-CASE-LAR-12259-1	c37 N78-22376	NASA-CASE-NPO-14163-1
	US-PATENT-APPL-SN-876298		US-PATENT-APPL-SN-878541
c54 N78-18763	NASA-CASE-ARC-11058-2	c43 N78-22436	NASA-CASE-GSC-12219-1
	US-PATENT-APPL-SN-883094		US-PATENT-APPL-SN-891356
c74 N78-18905	NASA-CASE-GSC-12010-1	c44 N78-22468	NASA-CASE-LAR-11551-1
	US-PATENT-APPL-SN-680958		US-PATENT-APPL-SN-883090
	US-PATENT-CLASS-250-213VT	c44 N78-22469	NASA-CASE-MFS-23515-1
	US-PATENT-CLASS-313-9A		US-PATENT-APPL-SN-880726
	US-PATENT-CLASS-313-442	c44 N78-22470	NASA-CASE-NPO-14199-1
	US-PATENT-4,070,574		NASA-CASE-NPO-14200-1
c02 N78-19055	NASA-CASE-FRC-11007-1		US-PATENT-APPL-SN-891243
	US-PATENT-APPL-SN-880725	c51 N78-22585	NASA-CASE-GSC-12158-1
c09 N78-19166	NASA-CASE-FRC-10113-1		US-PATENT-APPL-SN-888434
	US-PATENT-APPL-SN-885066	c51 N78-22586	NASA-CASE-HSC-16779-1
c27 N78-19302	NASA-CASE-NPO-13690-1		US-PATENT-APPL-SN-891247
	US-PATENT-APPL-SN-633876	c51 N78-22587	NASA-CASE-NPO-13953-1
	US-PATENT-CLASS-106-39.5		US-PATENT-APPL-SN-880727
	US-PATENT-CLASS-106-65	c51 N78-22588	NASA-CASE-HSC-16777-1
	US-PATENT-CLASS-106-73.5		US-PATENT-APPL-SN-893657
	US-PATENT-4,072,532	c51 N78-22589	NASA-CASE-HSC-16778-1
c35 N78-19465	NASA-CASE-ARC-10896-1		US-PATENT-APPL-SN-893648
	US-PATENT-APPL-SN-615030	c51 N78-22590	NASA-CASE-HSC-16841-1
	US-PATENT-CLASS-73-23		US-PATENT-APPL-SN-893382
	US-PATENT-4,055,072	c54 N78-22720	NASA-CASE-ARC-11031-1
c35 N78-19466	NASA-CASE-ARC-10820-1		US-PATENT-APPL-SN-897828
	US-PATENT-APPL-SN-620675	c54 N78-22721	NASA-CASE-KSC-11069-1
	US-PATENT-CLASS-119-51.11		US-PATENT-APPL-SN-876438
	US-PATENT-CLASS-119-72.5	c74 N78-22891	NASA-CASE-NPO-14093-1
	US-PATENT-CLASS-137-624.11		US-PATENT-APPL-SN-880729
	US-PATENT-4,055,147	c18 N78-23141	NASA-CASE-GSC-12273-1
c37 N78-19515	NASA-CASE-GSC-12297-1		US-PATENT-APPL-SN-897830
	US-PATENT-APPL-SN-880838	c32 N78-23275	NASA-CASE-LAR-12375-1
c44 N78-19599	NASA-CASE-LEW-12159-1		US-PATENT-APPL-SN-900842
	US-PATENT-APPL-SN-643041	c37 N78-23434	NASA-CASE-GSC-12318-1
	US-PATENT-CLASS-126-270		US-PATENT-APPL-SN-894213

ACCESSION NUMBER INDEX

c44 N78-23567	NASA-CASE-LAR-12205-1	US-PATENT-CLASS-427-249
	US-PATENT-APPL-SN-900843	US-PATENT-3,961,997
c20 N78-24275	NASA-CASE-LAR-12018-1	US-PATENT-4,077,818
	US-PATENT-APPL-SN-678520	NASA-CASE-NFS-23315-1
	US-PATENT-CLASS-60-39.82E	US-PATENT-APPL-SN-724874
	US-PATENT-CLASS-102-39	US-PATENT-CLASS-250-277CH
	US-PATENT-CLASS-102-49.7	US-PATENT-CLASS-250-280
	US-PATENT-CLASS-102-70R	US-PATENT-4,078,175
	US-PATENT-CLASS-285-192	
	US-PATENT-4,080,901	c76 N78-24952
c24 N78-24290	NASA-CASE-NFS-23506-1	NASA-CASE-NPO-14295-1
	US-PATENT-APPL-SN-760809	US-PATENT-APPL-SN-901055
	US-PATENT-CLASS-260-2.5AK	c03 N78-25070
	US-PATENT-CLASS-260-2.5AP	NASA-CASE-HSC-12564-2
	US-PATENT-CLASS-260-2.5B	US-PATENT-APPL-SN-861389
	US-PATENT-CLASS-260-2.5BE	c06 N78-25088
	US-PATENT-CLASS-260-2.5EP	NASA-CASE-FRC-11009-1
	US-PATENT-CLASS-260-2.5FP	US-PATENT-APPL-SN-910708
	US-PATENT-CLASS-260-29.1R	c07 N78-25089
	US-PATENT-CLASS-260-37EP	NASA-CASE-LEW-12452-1
	US-PATENT-CLASS-427-427	US-PATENT-APPL-SN-695513
	US-PATENT-4,077,921	US-PATENT-CLASS-60-39.52
c26 N78-24333	NASA-CASE-HSC-19693-1	US-PATENT-CLASS-60-226R
	US-PATENT-APPL-SN-708771	US-PATENT-4,083,181
	US-PATENT-CLASS-148-12.7A	c07 N78-25090
	US-PATENT-CLASS-148-125	NASA-CASE-LEW-11855-1
	US-PATENT-4,077,813	US-PATENT-APPL-SN-672222
c27 N78-24360	NASA-CASE-LAR-12099-1	US-PATENT-CLASS-277-25
	US-PATENT-APPL-SN-906299	US-PATENT-CLASS-277-134
c28 N78-24365	NASA-CASE-LEW-12081-1	US-PATENT-4,084,825
	US-PATENT-APPL-SN-676432	c15 N78-25119
	US-PATENT-CLASS-34-15	NASA-CASE-NFS-23564-1
	US-PATENT-CLASS-62-48	US-PATENT-APPL-SN-739908
	US-PATENT-CLASS-62-100	US-PATENT-CLASS-244-161
	US-PATENT-CLASS-250-492R	US-PATENT-CLASS-244-167
	US-PATENT-CLASS-423-648R	US-PATENT-4,083,520
	US-PATENT-4,077,788	c15 N78-25120
c31 N78-24386	NASA-CASE-GSC-12291-1	NASA-CASE-LAR-12250-1
	US-PATENT-APPL-SN-906298	US-PATENT-APPL-SN-910794
c31 N78-24387	NASA-CASE-NPO-14140-1	c24 N78-25137
	NASA-CASE-NPO-14381-1	NASA-CASE-NFS-23186-2
	US-PATENT-APPL-SN-897832	US-PATENT-APPL-SN-900832
c32 N78-24391	NASA-CASE-NPO-13886-1	c24 N78-25138
	US-PATENT-APPL-SN-730045	NASA-CASE-HSC-14795-2
	US-PATENT-CLASS-307-151	US-PATENT-APPL-SN-911747
	US-PATENT-CLASS-343-700MS	c25 N78-25148
	US-PATENT-CLASS-361-395	NASA-CASE-LEW-12465-1
	US-PATENT-4,079,268	US-PATENT-APPL-SN-692413
c32 N78-24402	NASA-CASE-NPO-14248-1	US-PATENT-CLASS-55-2
	US-PATENT-APPL-SN-901056	US-PATENT-CLASS-55-100
c35 N78-24515	NASA-CASE-LAR-11201-1	US-PATENT-CLASS-55-101
	US-PATENT-APPL-SN-788705	US-PATENT-CLASS-250-423P
	US-PATENT-CLASS-73-456	US-PATENT-CLASS-250-528
	US-PATENT-CLASS-73-756	US-PATENT-CLASS-250-531
	US-PATENT-CLASS-416-61	US-PATENT-4,085,332
	US-PATENT-CLASS-416-144	c25 N78-25149
	US-PATENT-4,082,001	NASA-CASE-LEW-12358-2
c37 N78-24544	NASA-CASE-HSC-16000-1	US-PATENT-APPL-SN-848428
	US-PATENT-APPL-SN-739915	c27 N78-25216
	US-PATENT-CLASS-29-23.5	NASA-CASE-HSC-14903-2
	US-PATENT-CLASS-29-156.8R	US-PATENT-APPL-SN-907435
	US-PATENT-CLASS-29-244	c27 N78-25217
	US-PATENT-CLASS-29-252	NASA-CASE-HSC-14903-3
	US-PATENT-4,078,290	US-PATENT-APPL-SN-907479
c37 N78-24545	NASA-CASE-LEW-12785-1	c27 N78-25219
	US-PATENT-APPL-SN-739909	NASA-CASE-NPO-13690-3
	US-PATENT-CLASS-60-39.28R	US-PATENT-APPL-SN-858761
	US-PATENT-4,078,378	c31 N78-25256
c37 N78-24554	NASA-CASE-NPO-14237-1	NASA-CASE-NPO-13839-1
	US-PATENT-APPL-SN-897831	US-PATENT-APPL-SN-712981
c44 N78-24608	NASA-CASE-GSC-12030-1	US-PATENT-CLASS-62-514R
	US-PATENT-APPL-SN-710035	US-PATENT-CLASS-250-332
	US-PATENT-CLASS-308-10	US-PATENT-CLASS-313-22
	US-PATENT-CLASS-310-153	US-PATENT-4,077,231
	US-PATENT-CLASS-310-154	c32 N78-25274
	US-PATENT-CLASS-310-178	NASA-CASE-HSC-16462-1
	US-PATENT-CLASS-310-269	US-PATENT-APPL-SN-900841
	US-PATENT-4,077,678	c32 N78-25275
c44 N78-24609	NASA-CASE-GSC-12022-2	NASA-CASE-NPO-14480-1
	US-PATENT-APPL-SN-576488	US-PATENT-APPL-SN-910707
	US-PATENT-APPL-SN-693074	c33 N78-25319
	US-PATENT-CLASS-29-572	NASA-CASE-NPO-13909-1
	US-PATENT-CLASS-136-895G	US-PATENT-APPL-SN-744477
	US-PATENT-CLASS-148-174	US-PATENT-CLASS-324-57DE
	US-PATENT-CLASS-357-30	US-PATENT-CLASS-324-57SS
	US-PATENT-CLASS-357-59	US-PATENT-CLASS-324-58A
	US-PATENT-CLASS-427-86	US-PATENT-4,084,132
	US-PATENT-CLASS-427-113	c33 N78-25323
	US-PATENT-CLASS-427-248J	NASA-CASE-LEW-12277-2
		US-PATENT-APPL-SN-896955
		c34 N78-25350
		NASA-CASE-HSC-19568-1
		US-PATENT-APPL-SN-681000
		US-PATENT-CLASS-49-DIG.1
		US-PATENT-CLASS-49-479
		US-PATENT-CLASS-49-485
		US-PATENT-CLASS-428-93
		US-PATENT-CLASS-428-94
		US-PATENT-CLASS-428-95
		US-PATENT-CLASS-428-96
		US-PATENT-CLASS-428-97
		US-PATENT-CLASS-428-913
		US-PATENT-4,078,110
		c34 N78-25351
		NASA-CASE-LEW-12718-1
		US-PATENT-APPL-SN-779428
		US-PATENT-CLASS-137-484.2
		US-PATENT-CLASS-137-501
		US-PATENT-CLASS-137-505.16
		US-PATENT-4,084,612
		c35 N78-25391
		NASA-CASE-NPO-13948-1

ACCRSSION NUMBER INDEX

	US-PATENT-APPL-SN-752748		US-PATENT-CLASS-260-37EP
	US-PATENT-CLASS-73-336.5		US-PATENT-CLASS-260-42.43
	US-PATENT-CLASS-204-195W		US-PATENT-CLASS-260-45.7R
	US-PATENT-4,083,765		US-PATENT-CLASS-260-45.9R
c36 N78-25409	NASA-CASE-NPO-13532-2		US-PATENT-CLASS-260-45.75W
	US-PATENT-APPL-SN-891246		US-PATENT-CLASS-260-45.85W
c37 N78-25426	NASA-CASE-MSC-12731-1		US-PATENT-CLASS-427-386
	US-PATENT-APPL-SN-690816		US-PATENT-CLASS-427-388A
	US-PATENT-CLASS-137-505.25		US-PATENT-CLASS-428-313
	US-PATENT-CLASS-137-625.3		US-PATENT-CLASS-428-332
	US-PATENT-CLASS-137-625.38		US-PATENT-CLASS-428-921
	US-PATENT-4,083,380		US-PATENT-4,088,806
c37 N78-25428	NASA-CASE-GSC-12274-1	c24 N78-27182	NASA-CASE-MFS-23674-1
	US-PATENT-APPL-SN-909100		US-PATENT-APPL-SN-912276
c37 N78-25429	NASA-CASE-GSC-12322-1	c24 N78-27184	NASA-CASE-ARC-11040-2
	US-PATENT-APPL-SN-907436		US-PATENT-APPL-SN-920878
c37 N78-25430	NASA-CASE-NPO-14220-1	c25 N78-27226	NASA-CASE-LEW-10518-3
	US-PATENT-APPL-SN-907421		US-PATENT-APPL-SN-266927
c37 N78-25431	NASA-CASE-NPO-14221-1		US-PATENT-APPL-SN-394207
	US-PATENT-APPL-SN-907431		US-PATENT-APPL-SN-863280
c37 N78-25432	NASA-CASE-NPO-14296-1		US-PATENT-CLASS-176-11
	US-PATENT-APPL-SN-910709		US-PATENT-CLASS-476-16
c44 N78-25527	NASA-CASE-LEW-12552-1		US-PATENT-CLASS-250-400
	US-PATENT-APPL-SN-770869		US-PATENT-CLASS-250-429
	US-PATENT-CLASS-29-572		US-PATENT-CLASS-250-492B
	US-PATENT-CLASS-136-89CC		US-PATENT-3,694,313
	US-PATENT-CLASS-357-30		US-PATENT-4,088,532
	US-PATENT-CLASS-357-65	c25 N78-27232	NASA-CASE-MSC-16307-1
	US-PATENT-CLASS-357-67		US-PATENT-APPL-SN-710798
	US-PATENT-CLASS-427-75	c25 N78-27233	NASA-CASE-NPO-14233-1
	US-PATENT-CLASS-427-261		US-PATENT-APPL-SN-920947
	US-PATENT-4,082,569	c26 N78-27255	NASA-CASE-NPO-14474-1
c44 N78-25528	NASA-CASE-LEW-12185-1		US-PATENT-APPL-SN-918537
	US-PATENT-APPL-SN-746269	c27 N78-27275	NASA-CASE-ARC-11154-1
	US-PATENT-CLASS-29-572		US-PATENT-APPL-SN-921626
	US-PATENT-CLASS-29-628	c33 N78-27326	NASA-CASE-MFS-23312-1
	US-PATENT-CLASS-136-89H		US-PATENT-APPL-SN-699012
	US-PATENT-CLASS-136-89P		US-PATENT-CLASS-29-571
	US-PATENT-4,083,097		US-PATENT-CLASS-29-578
c44 N78-25529	NASA-CASE-LEW-12541-1		US-PATENT-CLASS-357-91
	US-PATENT-APPL-SN-790637		US-PATENT-4,087,902
	US-PATENT-CLASS-29-572	c33 N78-27330	NASA-CASE-NPO-14350-1
	US-PATENT-CLASS-136-89CC		US-PATENT-APPL-SN-921627
	US-PATENT-CLASS-136-89H	c34 N78-27357	NASA-CASE-LEW-11877-1
	US-PATENT-CLASS-136-89P		US-PATENT-APPL-SN-708660
	US-PATENT-CLASS-156-633		US-PATENT-CLASS-60-39.65
	US-PATENT-4,084,985		US-PATENT-CLASS-60-39.69B
c44 N78-25530	NASA-CASE-LEW-12649-1		US-PATENT-CLASS-431-7
	US-PATENT-APPL-SN-720521		US-PATENT-CLASS-431-19
	US-PATENT-CLASS-427-385B		US-PATENT-CLASS-431-328
	US-PATENT-CLASS-427-385C		US-PATENT-4,087,962
	US-PATENT-CLASS-429-254	c35 N78-27384	NASA-CASE-LAR-11973-1
	US-PATENT-4,085,241		US-PATENT-APPL-SN-821681
c44 N78-25531	NASA-CASE-MFS-23270-1		US-PATENT-CLASS-73-61E
	US-PATENT-APPL-SN-744573		US-PATENT-CLASS-73-170A
	US-PATENT-CLASS-320-9		US-PATENT-CLASS-73-425.4R
	US-PATENT-CLASS-320-13		US-PATENT-4,089,209
	US-PATENT-CLASS-320-15	c35 N78-27385	NASA-CASE-NPO-14501-1
	US-PATENT-CLASS-320-32		US-PATENT-APPL-SN-918535
	US-PATENT-CLASS-320-39	c36 N78-27402	NASA-CASE-NPO-13945-1
	US-PATENT-4,084,124		US-PATENT-APPL-SN-704180
c44 N78-25553	NASA-CASE-LEW-12806-1		US-PATENT-CLASS-331-94.5G
	US-PATENT-APPL-SN-915050		US-PATENT-CLASS-331-94.5P
c44 N78-25554	NASA-CASE-LEW-13150-1		US-PATENT-CLASS-331-94.5PE
	US-PATENT-APPL-SN-914260		US-PATENT-4,088,965
c44 N78-25555	NASA-CASE-LEW-12038-3	c37 N78-27423	NASA-CASE-MSC-16270-1
	US-PATENT-APPL-SN-901892		US-PATENT-APPL-SN-837260
c44 N78-25557	NASA-CASE-MFS-23518-3		US-PATENT-CLASS-269-21
	US-PATENT-APPL-SN-910793		US-PATENT-CLASS-269-266
c44 N78-25560	NASA-CASE-NPO-13652-3		US-PATENT-4,088,312
	US-PATENT-APPL-SN-891358	c37 N78-27424	NASA-CASE-LAR-11889-2
c52 N78-25762	NASA-CASE-NPO-14073-1		US-PATENT-APPL-SN-662182
	US-PATENT-APPL-SN-814384		US-PATENT-APPL-SN-807703
c07 N78-27121	NASA-CASE-LAR-11919-1		US-PATENT-CLASS-73-178R
	US-PATENT-APPL-SN-672221		US-PATENT-CLASS-308-10
	US-PATENT-CLASS-60-230		US-PATENT-4,088,018
	US-PATENT-CLASS-239-265.25	c37 N78-27425	NASA-CASE-ARC-10981-1
	US-PATENT-CLASS-239-265.33		US-PATENT-APPL-SN-738218
	US-PATENT-4,088,270		US-PATENT-CLASS-248-178
c07 N78-27122	NASA-CASE-LEW-12990-1		US-PATENT-CLASS-248-186
	US-PATENT-APPL-SN-916654		US-PATENT-4,088,291
c20 N78-27176	NASA-CASE-MFS-23642-2	c44 N78-27515	NASA-CASE-NPO-12148-1
	US-PATENT-APPL-SN-923758		US-PATENT-APPL-SN-709415
c24 N78-27180	NASA-CASE-ARC-11043-1		US-PATENT-CLASS-136-89P
	US-PATENT-APPL-SN-753964		US-PATENT-4,089,705
	US-PATENT-CLASS-260-33.6EP	c44 N78-27520	NASA-CASE-LEW-12586-1
	US-PATENT-CLASS-260-33.6PQ		US-PATENT-APPL-SN-916655
	US-PATENT-CLASS-260-33.8EP	c44 N78-27541	NASA-CASE-NPO-14205-1
	US-PATENT-CLASS-260-33.8UA		US-PATENT-APPL-SN-920879

ACCESSION NUMBER INDEX

c51 N78-27733	NASA-CASE-ABC-10917-1 US-PATENT-APPL-SN-672223 US-PATENT-CLASS-119-29 US-PATENT-4,088,094	US-PATENT-CLASS-427-40 US-PATENT-CLASS-427-41 US-PATENT-CLASS-427-164 US-PATENT-CLASS-428-411 US-PATENT-CLASS-428-412 US-PATENT-CLASS-428-422 US-PATENT-CLASS-428-447 US-PATENT-CLASS-428-515 US-PATENT-CLASS-428-523 US-PATENT-CLASS-428-538 US-PATENT-4,091,166	
c52 N78-27750	NASA-CASE-HSC-16433-1 US-PATENT-APPL-SN-910992	NASA-CASE-NPO-14103-1 US-PATENT-APPL-SN-797210 US-PATENT-CLASS-149-19.4 US-PATENT-CLASS-149-19.8 US-PATENT-CLASS-149-88 US-PATENT-CLASS-149-92 US-PATENT-CLASS-149-93 US-PATENT-CLASS-149-105 US-PATENT-CLASS-149-111 US-PATENT-4,092,188	
c74 N78-27904	NASA-CASE-IAR-11869-1 US-PATENT-APPL-SN-740155 US-PATENT-CLASS-356-120 US-PATENT-CLASS-356-167 US-PATENT-4,088,408	c28 N78-31255	NASA-CASE-NPO-14022-1 US-PATENT-APPL-SN-780728 US-PATENT-CLASS-343-781CA US-PATENT-CLASS-343-782 US-PATENT-CLASS-343-837 US-PATENT-4,092,648
c75 N78-27913	NASA-CASE-HFS-22906-1 US-PATENT-APPL-SN-684807 US-PATENT-CLASS-29-81C US-PATENT-CLASS-313-231.3 US-PATENT-CLASS-315-111.2 US-PATENT-4,088,926	c32 N78-31321	NASA-CASE-NPO-14022-1 US-PATENT-APPL-SN-780728 US-PATENT-CLASS-343-781CA US-PATENT-CLASS-343-782 US-PATENT-CLASS-343-837 US-PATENT-4,092,648
c24 N78-28178	NASA-CASE-ARC-11174-1 US-PATENT-APPL-SN-929086	c35 N78-31406	NASA-CASE-LAR-11690-1 US-PATENT-APPL-SN-928129 US-PATENT-CLASS-GSC-11883-2 US-PATENT-APPL-SN-596787 US-PATENT-APPL-SN-747675 US-PATENT-CLASS-60-527 US-PATENT-CLASS-74-100R US-PATENT-4,010,455 US-PATENT-4,092,874
c33 N78-28339	NASA-CASE-FRC-11012-1 US-PATENT-APPL-SN-928137	c37 N78-31426	NASA-CASE-NPO-13581-2 US-PATENT-APPL-SN-590975 US-PATENT-APPL-SN-811815 US-PATENT-CLASS-126-271 US-PATENT-CLASS-237-1A US-PATENT-4,091,800
c33 N78-28340	NASA-CASE-NPO-14424-1 NASA-CASE-NPO-144340-1 US-PATENT-APPL-SN-918534 NASA-CASE-KSC-11035-1 US-PATENT-APPL-SN-780874 US-PATENT-CLASS-324-32 US-PATENT-CLASS-324-74 US-PATENT-CLASS-324-130 US-PATENT-4,088,951	c44 N78-31525	NASA-CASE-NPO-13813-1 US-PATENT-APPL-SN-765139 US-PATENT-CLASS-126-270 US-PATENT-CLASS-126-271 US-PATENT-CLASS-350-299 US-PATENT-4,091,798
c37 N78-28459	NASA-CASE-LEW-12982-1 US-PATENT-APPL-SN-929084	c44 N78-31526	NASA-CASE-NPO-13914-1 US-PATENT-APPL-SN-765139 US-PATENT-CLASS-126-270 US-PATENT-CLASS-126-271 US-PATENT-CLASS-350-299 US-PATENT-4,091,798
c37 N78-28460	NASA-CASE-HFS-23777-1 US-PATENT-APPL-SN-931217	c44 N78-31527	NASA-CASE-NPO-13937-1 US-PATENT-APPL-SN-718137 US-PATENT-CLASS-44-1B US-PATENT-CLASS-44-2 US-PATENT-CLASS-201-17 US-PATENT-4,081,250
c44 N78-28594	NASA-CASE-NPO-13821-1 US-PATENT-APPL-SN-688852 US-PATENT-CLASS-343-16M US-PATENT-CLASS-343-113R US-PATENT-CLASS-343-119 US-PATENT-4,088,999	c54 N78-31735	NASA-CASE-ARC-11058-1 US-PATENT-APPL-SN-753965 US-PATENT-CLASS-2-2.1A US-PATENT-CLASS-285-235 US-PATENT-4,091,464
c44 N78-28625	NASA-CASE-NPO-14096-1 US-PATENT-APPL-SN-928128	c54 N78-31736	NASA-CASE-ARC-11100-1 US-PATENT-APPL-SN-780569 US-PATENT-CLASS-2-2.1A US-PATENT-4,091,465
c44 N78-28626	NASA-CASE-NPO-14303-1 NASA-CASE-NPO-14305-1 US-PATENT-APPL-SN-928133 NASA-CASE-NPO-13114-2 US-PATENT-APPL-SN-294738 US-PATENT-APPL-SN-634214 US-PATENT-CLASS-176-22 US-PATENT-CLASS-176-33 US-PATENT-CLASS-176-39 US-PATENT-4,085,004	c05 N78-32086	NASA-CASE-LAR-11932-1 US-PATENT-APPL-SN-718244 US-PATENT-CLASS-244-45A US-PATENT-CLASS-244-46 US-PATENT-CLASS-244-218 US-PATENT-4,093,156
c73 N78-28913	NASA-CASE-NPO-13114-2 US-PATENT-APPL-SN-294738 US-PATENT-APPL-SN-634214 US-PATENT-CLASS-176-22 US-PATENT-CLASS-176-33 US-PATENT-CLASS-176-39 US-PATENT-4,085,004	c15 N78-32168	NASA-CASE-LAR-12264-1 US-PATENT-APPL-SN-943087 NASA-CASE-NPO-11458A US-PATENT-APPL-SN-48621 US-PATENT-CLASS-102-103 US-PATENT-CLASS-149-19.4 US-PATENT-CLASS-149-42 US-PATENT-CLASS-149-43 US-PATENT-CLASS-149-44 US-PATENT-CLASS-149-76 US-PATENT-CLASS-149-83 US-PATENT-CLASS-149-85 US-PATENT-4,116,131
c32 N78-29310	NASA-CASE-IAR-12172-1 US-PATENT-APPL-SN-928132	c20 N78-32179	NASA-CASE-ARC-10992-1 US-PATENT-APPL-SN-760810
c35 N78-29421	NASA-CASE-NPO-11954-1 US-PATENT-APPL-SN-229287 US-PATENT-CLASS-179-100.2CH US-PATENT-CLASS-340-174.1M US-PATENT-CLASS-340-174YC US-PATENT-CLASS-350-151 US-PATENT-3,775,570		
c36 N78-29435	NASA-CASE-LAR-12176-1 US-PATENT-APPL-SN-929083		
c71 N78-29871	NASA-CASE-IAR-12304-1 US-PATENT-APPL-SN-928130		
c74 N78-29902	NASA-CASE-GSC-12348-1 US-PATENT-APPL-SN-929088		
c54 N78-30821	NASA-CASE-LAR-12149-2 US-PATENT-APPL-SN-928131		
c07 N78-31103	NASA-CASE-LEW-12131-2 US-PATENT-APPL-SN-931090		
c09 N78-31129	NASA-CASE-HSC-19706-1 US-PATENT-APPL-SN-767911 US-PATENT-CLASS-73-147 US-PATENT-CLASS-239-265.25 US-PATENT-4,091,665		
c20 N78-31162	NASA-CASE-HSC-18179-1 US-PATENT-APPL-SN-931218		
c27 N78-31232	NASA-CASE-ARC-11008-1 US-PATENT-APPL-SN-708951 US-PATENT-CLASS-260-2.5N US-PATENT-CLASS-260-47CP US-PATENT-CLASS-260-63N US-PATENT-CLASS-260-78.41 US-PATENT-4,092,274		
c27 N78-31233	NASA-CASE-ARC-11057-1 US-PATENT-APPL-SN-807762 US-PATENT-CLASS-350-165 US-PATENT-CLASS-350-175NG		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-204-164	c35 N78-32395	NASA-CASE-ARC-11036-1
	US-PATENT-CLASS-204-175		US-PATENT-APPL-SN-740457
	US-PATENT-CLASS-423-582		US-PATENT-CLASS-33-366
	US-PATENT-CLASS-423-583		US-PATENT-4,094,073
	US-PATENT-4,094,758	c35 N78-32396	NASA-CASE-HFS-23363-1
c27 N78-32256	NASA-CASE-HSC-14903-1		US-PATENT-APPL-SN-730086
	US-PATENT-APPL-SN-706424		US-PATENT-CLASS-324-173
	US-PATENT-CLASS-260-2P		US-PATENT-CLASS-324-207
	US-PATENT-CLASS-260-551P		US-PATENT-4,093,917
	US-PATENT-CLASS-260-606-5P	c35 N78-32397	NASA-CASE-LAR-11617-2
	US-PATENT-CLASS-260-959		US-PATENT-APPL-SN-547072
	US-PATENT-CLASS-526-13		US-PATENT-APPL-SN-668771
	US-PATENT-CLASS-526-23		US-PATENT-CLASS-324-249
	US-PATENT-CLASS-526-27		US-PATENT-4,088,954
	US-PATENT-CLASS-526-49	c35 N78-32398	NASA-CASE-LAR-12285-1
	US-PATENT-CLASS-526-50		US-PATENT-APPL-SN-929087
	US-PATENT-CLASS-526-275	c35 N78-32399	NASA-CASE-LAR-11370-1
	US-PATENT-CLASS-526-276		US-PATENT-APPL-SN-940689
	US-PATENT-CLASS-526-278	c37 N78-32429	NASA-CASE-GSC-12276-1
	US-PATENT-CLASS-544-195		US-PATENT-APPL-SN-935811
	US-PATENT-4,092,466	c37 N78-32431	NASA-CASE-HSC-16938-1
c27 N78-32260	NASA-CASE-ARC-11051-1		US-PATENT-APPL-SN-938582
	US-PATENT-APPL-SN-736910	c37 N78-32434	NASA-CASE-ARC-11110-1
	US-PATENT-CLASS-65-30R		US-PATENT-APPL-SN-945040
	US-PATENT-CLASS-65-60D	c37 N78-32435	NASA-CASE-GSC-12289-1
	US-PATENT-CLASS-106-48		US-PATENT-APPL-SN-943086
	US-PATENT-CLASS-106-54	c37 N78-32436	NASA-CASE-GSC-12331-1
	US-PATENT-CLASS-427-215		US-PATENT-APPL-SN-943088
	US-PATENT-CLASS-427-376A	c38 N78-32447	NASA-CASE-HFS-23114-1
	US-PATENT-CLASS-427-376B		US-PATENT-APPL-SN-686331
	US-PATENT-CLASS-427-379		US-PATENT-CLASS-73-603
	US-PATENT-CLASS-427-380		US-PATENT-CLASS-350-3.5
	US-PATENT-CLASS-428-312		US-PATENT-CLASS-356-72
	US-PATENT-CLASS-428-325		US-PATENT-CLASS-356-73
	US-PATENT-CLASS-428-331		US-PATENT-4,093,382
	US-PATENT-CLASS-428-341	c44 N78-32539	NASA-CASE-LAR-11208-1
	US-PATENT-CLASS-428-406		US-PATENT-APPL-SN-710036
	US-PATENT-CLASS-428-427		US-PATENT-CLASS-60-39.07
	US-PATENT-CLASS-428-428		US-PATENT-CLASS-60-39.14
	US-PATENT-CLASS-428-446		US-PATENT-CLASS-60-39.33
	US-PATENT-CLASS-428-920		US-PATENT-CLASS-98-1.5
	US-PATENT-4,093,771		US-PATENT-CLASS-417-88
c27 N78-32261	NASA-CASE-LAR-11828-1		US-PATENT-4,091,613
	US-PATENT-APPL-SN-448321	c44 N78-32542	NASA-CASE-KSC-11034-1
	US-PATENT-APPL-SN-562992		US-PATENT-APPL-SN-782481
	US-PATENT-CLASS-260-47CP		US-PATENT-CLASS-60-641
	US-PATENT-CLASS-260-49		US-PATENT-CLASS-60-671
	US-PATENT-CLASS-260-63R		US-PATENT-4,087,975
	US-PATENT-CLASS-260-63R	c54 N78-32720	NASA-CASE-HSC-14805-1
	US-PATENT-CLASS-260-65		US-PATENT-APPL-SN-688856
	US-PATENT-CLASS-260-78TP		US-PATENT-CLASS-340-213R
	US-PATENT-4,094,862		US-PATENT-CLASS-340-262
c27 N78-32262	NASA-CASE-HSC-14331-3		US-PATENT-CLASS-340-279
	US-PATENT-APPL-SN-374421		US-PATENT-CLASS-340-285
	US-PATENT-APPL-SN-657998		US-PATENT-CLASS-340-309.1
	US-PATENT-CLASS-264-130		US-PATENT-4,092,633
	US-PATENT-CLASS-264-184	c54 N78-32721	NASA-CASE-ARC-11059-1
	US-PATENT-CLASS-264-211		US-PATENT-APPL-SN-753978
	US-PATENT-CLASS-264-236		US-PATENT-CLASS-62-259
	US-PATENT-3,956,233		US-PATENT-CLASS-128-142.7
	US-PATENT-4,094,943		US-PATENT-4,095,593
c33 N78-32338	NASA-CASE-GSC-12137-1	c54 N78-32724	NASA-CASE-HFS-23696-1
	US-PATENT-APPL-SN-808510		US-PATENT-APPL-SN-945044
	US-PATENT-CLASS-329-124	c73 N78-32848	NASA-CASE-GSC-12083-1
	US-PATENT-CLASS-331-4		US-PATENT-APPL-SN-643897
	US-PATENT-CLASS-331-12		US-PATENT-CLASS-350-170
	US-PATENT-CLASS-331-64		US-PATENT-CLASS-350-173
	US-PATENT-4,092,606		US-PATENT-CLASS-350-174
c33 N78-32339	NASA-CASE-GSC-12145-1		US-PATENT-CLASS-350-286
	US-PATENT-APPL-SN-769149		US-PATENT-CLASS-350-320
	US-PATENT-CLASS-307-229		US-PATENT-4,093,354
	US-PATENT-CLASS-307-230	c74 N78-32854	NASA-CASE-ARC-11039-1
	US-PATENT-CLASS-328-145		US-PATENT-APPL-SN-750655
	US-PATENT-4,091,329		US-PATENT-CLASS-351-166
c33 N78-32340	NASA-CASE-GSC-12146-1		US-PATENT-CLASS-427-38
	US-PATENT-APPL-SN-782480		US-PATENT-CLASS-427-41
	US-PATENT-CLASS-325-159		US-PATENT-CLASS-427-84
	US-PATENT-CLASS-325-187		US-PATENT-CLASS-427-164
	US-PATENT-CLASS-333-17R		US-PATENT-CLASS-427-302
	US-PATENT-CLASS-333-81R		US-PATENT-CLASS-427-322
	US-PATENT-4,092,617		US-PATENT-CLASS-427-387
c33 N78-32341	NASA-CASE-LEW-12791-1		US-PATENT-CLASS-428-412
	US-PATENT-APPL-SN-801432		US-PATENT-CLASS-428-447
	US-PATENT-CLASS-363-16		US-PATENT-4,096,315
	US-PATENT-CLASS-363-101	c74 N78-32857	NASA-CASE-GSC-12357-1
	US-PATENT-4,092,712		US-PATENT-APPL-SN-943089
c33 N78-32347	NASA-CASE-HFS-23845-1	c07 N78-33101	NASA-CASE-LEW-12496-1
	US-PATENT-APPL-SN-938298		US-PATENT-APPL-SN-668971
			US-PATENT-CLASS-29-463

ACCESSION NUMBER INDEX

US-PATENT-CLASS-74-572
 US-PATENT-CLASS-416-214A
 US-PATENT-CLASS-416-244A
 US-PATENT-4,097,194
 c09 N78-33123 NASA-CASE-LAR-12269-1
 US-PATENT-APPL-SN-934576
 c25 N78-33164 NASA-CASE-NPO-14272-1
 US-PATENT-APPL-SN-878253
 c27 N78-33228 NASA-CASE-NPO-8835
 US-PATENT-APPL-SN-568721
 US-PATENT-CLASS-260-28.5
 US-PATENT-3,527,724
 c37 N78-33446 NASA-CASE-LAR-12195-1
 US-PATENT-APPL-SN-946991
 c43 N78-33511 NASA-CASE-LAR-12344-1
 US-PATENT-APPL-SN-945041
 c44 N78-33526 NASA-CASE-NPO-13763-1
 US-PATENT-APPL-SN-718268
 US-PATENT-CLASS-123-DIG.12
 US-PATENT-CLASS-123-1A
 US-PATENT-CLASS-123-3
 US-PATENT-4,112,875
 c52 N78-33717 NASA-CASE-ARC-11114-1
 US-PATENT-APPL-SN-951422
 c78 N78-33913 NASA-CASE-NPO-10233-1
 US-PATENT-APPL-SN-716885
 US-PATENT-CLASS-250-218
 US-PATENT-CLASS-250-227
 US-PATENT-CLASS-250-239
 US-PATENT-CLASS-356-208
 US-PATENT-3,573,470
 c04 N79-10039 NASA-CASE-NPO-14173-1
 US-PATENT-APPL-SN-938581
 c07 N79-10057 NASA-CASE-LEW-12232-1
 US-PATENT-APPL-SN-776029
 US-PATENT-CLASS-60-39.14
 US-PATENT-CLASS-415-115
 US-PATENT-CLASS-415-116
 US-PATENT-4,117,669
 c09 N79-10069 NASA-CASE-FRC-11022-1
 US-PATENT-APPL-SN-932108
 c25 N79-10162 NASA-CASE-ARC-11053-1
 US-PATENT-APPL-SN-814378
 US-PATENT-CLASS-23-252R
 US-PATENT-CLASS-423-581
 US-PATENT-4,101,644
 c25 N79-10163 NASA-CASE-NPO-13274-1
 US-PATENT-APPL-SN-406296
 US-PATENT-CLASS-204-180S
 US-PATENT-CLASS-204-299
 US-PATENT-3,932,262
 c25 N79-10167 NASA-CASE-NPO-14340-1
 US-PATENT-APPL-SN-946992
 c25 N79-10168 NASA-CASE-NPO-14223-1
 US-PATENT-APPL-SN-938580
 c25 N79-10169 NASA-CASE-NPO-14143-1
 NASA-CASE-NPO-14342-1
 US-PATENT-APPL-SN-938297
 c28 N79-10224 NASA-CASE-NPO-14477-1
 US-PATENT-APPL-SN-951830
 c28 N79-10225 NASA-CASE-NPO-14110-1
 US-PATENT-APPL-SN-947000
 c28 N79-10227 NASA-CASE-NPO-14109-1
 US-PATENT-APPL-SN-946990
 c31 N79-10245 NASA-CASE-NPO-14406-1
 US-PATENT-APPL-SN-951828
 c31 N79-10246 NASA-CASE-NPO-14253-1
 NASA-CASE-NPO-14640-1
 US-PATENT-APPL-SN-938293
 c32 N79-10262 NASA-CASE-NPO-13941-1
 US-PATENT-APPL-SN-774384
 US-PATENT-CLASS-307-233R
 US-PATENT-CLASS-324-77B
 US-PATENT-CLASS-324-77C
 US-PATENT-4,118,666
 c32 N79-10263 NASA-CASE-HSC-12743-1
 US-PATENT-APPL-SN-765167
 US-PATENT-CLASS-325-41
 US-PATENT-CLASS-340-146.1A
 US-PATENT-CLASS-340-146.1E
 US-PATENT-4,100,531
 c32 N79-10264 NASA-CASE-HFS-22234-1
 US-PATENT-APPL-SN-730778
 US-PATENT-CLASS-343-6R
 US-PATENT-CLASS-343-9
 US-PATENT-4,118,701
 c32 N79-10271 NASA-CASE-NPO-14224-1
 US-PATENT-APPL-SN-951829
 c33 N79-10337 NASA-CASE-KSC-11018-1

US-PATENT-APPL-SN-782693
 US-PATENT-CLASS-324-72
 US-PATENT-CLASS-324-96
 US-PATENT-CLASS-324-133
 US-PATENT-4,100,487
 c33 N79-10338 NASA-CASE-GSC-12228-1
 US-PATENT-APPL-SN-858764
 US-PATENT-CLASS-324-57R
 US-PATENT-CLASS-324-83D
 US-PATENT-CLASS-324-85
 US-PATENT-CLASS-328-163
 US-PATENT-4,118,665
 c33 N79-10339 NASA-CASE-LEW-12013-1
 US-PATENT-APPL-SN-768795
 US-PATENT-CLASS-301-82
 US-PATENT-CLASS-315-3.5
 US-PATENT-CLASS-315-3.6
 US-PATENT-CLASS-330-43
 US-PATENT-4,118,671
 c35 N79-10389 NASA-CASE-HFS-23461-1
 US-PATENT-APPL-SN-694406
 US-PATENT-CLASS-96-27R
 US-PATENT-CLASS-96-60R
 US-PATENT-CLASS-250-475
 US-PATENT-CLASS-252-301.1R
 US-PATENT-CLASS-252-301.16
 US-PATENT-4,101,780
 c35 N79-10390 NASA-CASE-LAR-12260-1
 US-PATENT-CLASS-73-579
 US-PATENT-CLASS-73-589
 US-PATENT-4,117,731
 c35 N79-10391 NASA-CASE-NPO-13862-1
 US-PATENT-APPL-SN-744577
 US-PATENT-CLASS-324-77K
 US-PATENT-CLASS-343-5C
 US-PATENT-CLASS-343-5W
 US-PATENT-CLASS-343-17.2PC
 US-PATENT-4,101,891
 c35 N79-10392 NASA-CASE-NPO-14362-1
 US-PATENT-APPL-SN-946995
 c37 N79-10418 NASA-CASE-LEW-12569-1
 US-PATENT-APPL-SN-792069
 US-PATENT-CLASS-308-DIG.1
 US-PATENT-CLASS-308-5R
 US-PATENT-CLASS-308-9
 US-PATENT-CLASS-308-121
 US-PATENT-CLASS-308-160
 US-PATENT-CLASS-308-163
 US-PATENT-CLASS-308-172
 US-PATENT-4,099,799
 c37 N79-10419 NASA-CASE-FRC-10111-1
 US-PATENT-APPL-SN-713027
 US-PATENT-CLASS-30-90.6
 US-PATENT-CLASS-81-9.5R
 US-PATENT-4,117,749
 c37 N79-10420 NASA-CASE-NPO-14014-1
 US-PATENT-APPL-SN-826204
 US-PATENT-CLASS-188-1C
 US-PATENT-CLASS-256-1
 US-PATENT-CLASS-256-13.1
 US-PATENT-4,118,014
 c37 N79-10421 NASA-CASE-HFS-23620-1
 US-PATENT-APPL-SN-799023
 US-PATENT-CLASS-219-124.2-2
 US-PATENT-CLASS-219-124.32
 US-PATENT-CLASS-219-125.1
 US-PATENT-CLASS-228-8
 US-PATENT-4,118,620
 c37 N79-10422 NASA-CASE-HFS-23051-1
 US-PATENT-APPL-SN-632111
 US-PATENT-CLASS-15-230.16
 US-PATENT-CLASS-15-230.17
 US-PATENT-CLASS-29-125
 US-PATENT-CLASS-74-572
 US-PATENT-CLASS-428-133
 US-PATENT-4,098,142
 c37 N79-10426 NASA-CASE-LEW-12274-1
 US-PATENT-APPL-SN-950876
 c37 N79-10427 NASA-CASE-NPO-14473-1
 US-PATENT-APPL-SN-938300
 c44 N79-10513 NASA-CASE-NPO-13732-1
 US-PATENT-APPL-SN-765138
 US-PATENT-CLASS-429-13
 US-PATENT-CLASS-429-41
 US-PATENT-CLASS-429-42
 US-PATENT-4,100,331
 c44 N79-10529 NASA-CASE-NPO-14467-1
 US-PATENT-APPL-SN-946994
 c45 N79-10570 NASA-CASE-LAR-11669-1

ACCESSION NUMBER INDEX

	US-PATENT-APPL-SN-630582		US-PATENT-APPL-SN-736286
	US-PATENT-CLASS-98-58		US-PATENT-CLASS-325-4
	US-PATENT-CLASS-110-184		US-PATENT-CLASS-325-67
	US-PATENT-CLASS-114-187		US-PATENT-CLASS-343-17.7
	US-PATENT-CLASS-239-2R		US-PATENT-4, 119, 964
	US-PATENT-CLASS-239-14	c33 N79-11313	NASA-CASE-HSC-16461-1
	US-PATENT-4, 099, 452		US-PATENT-APPL-SN-858765
c48 N79-10689	NASA-CASE-HFS-23862-1		US-PATENT-CLASS-307-232
	US-PATENT-APPL-SN-951423		US-PATENT-CLASS-328-133
c51 N79-10693	NASA-CASE-HSC-16098-1		US-PATENT-CLASS-331-1A
	US-PATENT-APPL-SN-792068		US-PATENT-CLASS-331-14
	US-PATENT-CLASS-210-23P		US-PATENT-CLASS-331-23
	US-PATENT-CLASS-210-96H		US-PATENT-CLASS-331-27
	US-PATENT-CLASS-210-433H		US-PATENT-4, 119, 926
	US-PATENT-4, 118, 315	c33 N79-11314	NASA-CASE-NPO-13064-1
c51 N79-10694	NASA-CASE-GSC-12173-1		US-PATENT-APPL-SN-297436
	US-PATENT-APPL-SN-806440		US-PATENT-CLASS-357-22
	US-PATENT-CLASS-62-78		US-PATENT-3, 860, 946
	US-PATENT-CLASS-62-514R	c33 N79-11315	NASA-CASE-HSC-11031-1
	US-PATENT-CLASS-165-2		US-PATENT-APPL-SN-782482
	US-PATENT-CLASS-165-30		US-PATENT-CLASS-324-102
	US-PATENT-CLASS-195-1.8		US-PATENT-CLASS-324-113
	US-PATENT-CLASS-219-299		US-PATENT-CLASS-324-133
	US-PATENT-CLASS-219-302		US-PATENT-4, 105, 966
	US-PATENT-4, 117, 881	c37 N79-11402	NASA-CASE-HSC-16043-1
c52 N79-10724	NASA-CASE-ARC-10985-1		US-PATENT-APPL-SN-750792
	US-PATENT-APPL-SN-769148		US-PATENT-CLASS-137-614.06
	US-PATENT-CLASS-128-2.05R		US-PATENT-CLASS-137-637.05
	US-PATENT-CLASS-358-96		US-PATENT-CLASS-251-149.9
	US-PATENT-CLASS-358-111		US-PATENT-CLASS-285-326
	US-PATENT-CLASS-364-417		US-PATENT-CLASS-285-359
	US-PATENT-4, 101, 961		US-PATENT-4, 103, 712
c75 N79-10894	NASA-CASE-LEW-12940-1	c37 N79-11403	NASA-CASE-LEW-12793-1
	US-PATENT-APPL-SN-953391		US-PATENT-APPL-SN-745766
c76 N79-10917	NASA-CASE-NPO-14298-1		US-PATENT-CLASS-60.39.08
	US-PATENT-APPL-SN-938579		US-PATENT-CLASS-60-39.28R
c76 N79-10918	NASA-CASE-NPO-14297-1		US-PATENT-CLASS-60-39.66
	US-PATENT-APPL-SN-938299		US-PATENT-4, 104, 873
c89 N79-10969	NASA-CASE-HFS-23675-1	c37 N79-11404	NASA-CASE-HFS-23447-1
	US-PATENT-APPL-SN-820498		US-PATENT-APPL-SN-736909
	US-PATENT-CLASS-350-55		US-PATENT-CLASS-308-72
	US-PATENT-CLASS-350-294		US-PATENT-CLASS-308-194
	US-PATENT-4, 101, 195		US-PATENT-4, 105, 261
c99 N79-10995	NASA-CASE-FRC-11006-1	c37 N79-11405	NASA-CASE-NPO-13828-1
	US-PATENT-APPL-SN-877786		US-PATENT-APPL-SN-672636
c18 N79-11108	NASA-CASE-HFS-23579-1		US-PATENT-CLASS-123-148DC
	US-PATENT-APPL-SN-829316		US-PATENT-CLASS-123-148E
	US-PATENT-CLASS-228-13		US-PATENT-CLASS-315-209CD
	US-PATENT-CLASS-228-15.1		US-PATENT-CLASS-315-209SC
	US-PATENT-CLASS-228-173		US-PATENT-CLASS-315-241R
	US-PATENT-CLASS-244-159		US-PATENT-4, 122, 816
	US-PATENT-4, 122, 991	c44 N79-11467	NASA-CASE-LEW-12819-1
c25 N79-11151	NASA-CASE-NPO-13958-1		US-PATENT-APPL-SN-803823
	US-PATENT-APPL-SN-745384		US-PATENT-CLASS-136-89CC
	US-PATENT-CLASS-126-91A		US-PATENT-CLASS-136-89SJ
	US-PATENT-CLASS-431-10		US-PATENT-CLASS-357-15
	US-PATENT-CLASS-431-208		US-PATENT-CLASS-357-16
	US-PATENT-CLASS-432-29		US-PATENT-CLASS-357-30
	US-PATENT-CLASS-432-223		US-PATENT-CLASS-357-65
	US-PATENT-4, 104, 018		US-PATENT-CLASS-357-67
c25 N79-11152	NASA-CASE-NPO-13904-1		US-PATENT-4, 104, 084
	US-PATENT-APPL-SN-730468	c44 N79-11468	NASA-CASE-LEW-12775-1
	US-PATENT-CLASS-44-51		US-PATENT-APPL-SN-799026
	US-PATENT-CLASS-208-8		US-PATENT-CLASS-29-572
	US-PATENT-CLASS-208-10		US-PATENT-CLASS-136-89
	US-PATENT-CLASS-302-66		US-PATENT-CLASS-148-188
	US-PATENT-4, 121, 995		US-PATENT-CLASS-427-75
c27 N79-11215	NASA-CASE-ARC-11170-1		US-PATENT-4, 104, 091
	US-PATENT-APPL-SN-956161	c44 N79-11469	NASA-CASE-HFS-23518-1
c27 N79-11216	NASA-CASE-LEW-13027-1		US-PATENT-APPL-SN-829390
	US-PATENT-APPL-SN-958575		US-PATENT-CLASS-204-32
c28 N79-11231	NASA-CASE-NPO-13858-1		US-PATENT-CLASS-204-33
	NASA-CASE-NPO-13859-1		US-PATENT-CLASS-204-37R
	US-PATENT-APPL-SN-740153		US-PATENT-CLASS-204-38B
	US-PATENT-CLASS-102-28R		US-PATENT-4, 104, 134
	US-PATENT-4, 103, 619	c44 N79-11470	NASA-CASE-NPO-14126-1
c31 N79-11246	NASA-CASE-LAR-12147-1		US-PATENT-APPL-SN-838336
	US-PATENT-APPL-SN-733825		US-PATENT-CLASS-204-157.1R
	US-PATENT-CLASS-73-95		US-PATENT-CLASS-250-527
	US-PATENT-CLASS-73-159		US-PATENT-4, 105, 517
	US-PATENT-4, 103, 550	c44 N79-11471	NASA-CASE-NPO-13817-1
c31 N79-11249	NASA-CASE-LAR-11855-1		US-PATENT-APPL-SN-765139
	US-PATENT-APPL-SN-953314		US-PATENT-APPL-SN-801452
c32 N79-11264	NASA-CASE-HSC-14939-1		US-PATENT-CLASS-126-270
	US-PATENT-APPL-SN-765165		US-PATENT-CLASS-126-271
	US-PATENT-CLASS-343-844		US-PATENT-CLASS-350-288
	US-PATENT-CLASS-343-854		US-PATENT-CLASS-350-299
	US-PATENT-4, 119, 972		US-PATENT-4, 091, 798
c32 N79-11265	NASA-CASE-GSC-12150-1		US-PATENT-4, 122, 833

ACCESSION NUMBER INDEX

c44 N79-11472	NASA-CASE-LEW-12552-2 US-PATENT-APPL-SN-770869 US-PATENT-APPL-SN-844346 US-PATENT-CLASS-29-572 US-PATENT-CLASS-427-75 US-PATENT-CLASS-427-84 US-PATENT-CLASS-427-123 US-PATENT-CLASS-427-126 US-PATENT-CLASS-427-261 US-PATENT-CLASS-427-343 US-PATENT-CLASS-427-398A US-PATENT-CLASS-427-399 US-PATENT-4, 082, 569 US-PATENT-4, 122, 214	US-PATENT-CLASS-210-60 US-PATENT-CLASS-210-63R US-PATENT-CLASS-423-242 US-PATENT-4, 123, 355
c52 N79-11684	NASA-CASE-ARC-11091-1 US-PATENT-APPL-SN-956162	c52 N79-12694 NASA-CASE-NPO-13913-1 US-PATENT-APPL-SN-687251 US-PATENT-CLASS-128-2R US-PATENT-CLASS-364-120 US-PATENT-CLASS-364-300 US-PATENT-CLASS-364-415 US-PATENT-CLASS-364-900 US-PATENT-4, 122, 518
c74 N79-11865	NASA-CASE-NFS-23513-1 US-PATENT-APPL-SN-755323 US-PATENT-CLASS-356-124 US-PATENT-CLASS-356-210 US-PATENT-4, 102, 580	c74 N79-12890 NASA-CASE-KSC-11010-1 US-PATENT-APPL-SN-753977 US-PATENT-CLASS-200-46 US-PATENT-CLASS-200-61 US-PATENT-CLASS-250-214AL US-PATENT-CLASS-250-214R US-PATENT-CLASS-315-153 US-PATENT-4, 122, 334
c74 N79-11866	NASA-CASE-LAR-12178-1 US-PATENT-APPL-SN-953390	c20 N79-13077 NASA-CASE-NFS-23904-1 US-PATENT-APPL-SN-966549
c76 N79-11920	NASA-CASE-NPO-13918-1 US-PATENT-APPL-SN-706073 US-PATENT-CLASS-156-DIG. 64 US-PATENT-CLASS-156-DIG. 65 US-PATENT-CLASS-156-DIG. 88 US-PATENT-CLASS-156-608 US-PATENT-CLASS-156-617SP US-PATENT-4, 121, 965	c32 N79-13214 NASA-CASE-NPO-14009-1 US-PATENT-APPL-SN-818917 US-PATENT-CLASS-343-7.4 US-PATENT-CLASS-343-117R US-PATENT-CLASS-343-118 US-PATENT-4, 122, 454
c05 N79-12061	NASA-CASE-PRC-10092-1 US-PATENT-APPL-SN-831634 US-PATENT-CLASS-244-48 US-PATENT-CLASS-244-82 US-PATENT-CLASS-244-90R US-PATENT-4, 124, 180	c33 N79-13261 NASA-CASE-GSC-12399-1 US-PATENT-APPL-SN-961831
c27 N79-12221	NASA-CASE-HSC-12619-2 US-PATENT-APPL-SN-555750 US-PATENT-APPL-SN-786913 US-PATENT-CLASS-244-121 US-PATENT-CLASS-244-158 US-PATENT-CLASS-244-160 US-PATENT-CLASS-428-77 US-PATENT-CLASS-428-189 US-PATENT-CLASS-428-212 US-PATENT-CLASS-428-280 US-PATENT-CLASS-428-285 US-PATENT-CLASS-428-286 US-PATENT-CLASS-428-332 US-PATENT-CLASS-428-447 US-PATENT-CLASS-428-450 US-PATENT-CLASS-428-920 US-PATENT-4, 124, 732	c33 N79-13262 NASA-CASE-GSC-12324-1 US-PATENT-APPL-SN-945043
c33 N79-12321	NASA-CASE-GSC-12190-1 US-PATENT-APPL-SN-817413 US-PATENT-CLASS-357-22 US-PATENT-CLASS-357-23 US-PATENT-CLASS-357-41 US-PATENT-CLASS-357-45 US-PATENT-CLASS-357-55 US-PATENT-4, 119, 996	c34 N79-13288 NASA-CASE-LEW-12252-1 US-PATENT-APPL-SN-559847 US-PATENT-CLASS-60-267 US-PATENT-CLASS-165-169 US-PATENT-CLASS-239-127.1 US-PATENT-4, 107, 919
c33 N79-12331	NASA-CASE-HSC-12662-1 US-PATENT-APPL-SN-580779 US-PATENT-CLASS-428-109 US-PATENT-CLASS-428-247 US-PATENT-CLASS-428-258 US-PATENT-CLASS-428-259 US-PATENT-4, 107, 363	c34 N79-13289 NASA-CASE-LEW-12441-1 US-PATENT-APPL-SN-559846 US-PATENT-CLASS-60-267 US-PATENT-CLASS-165-146 US-PATENT-CLASS-165-169 US-PATENT-CLASS-239-127.1 US-PATENT-4, 108, 241
c34 N79-12359	NASA-CASE-LAR-11729-1 US-PATENT-APPL-SN-856461 US-PATENT-CLASS-73-189 US-PATENT-CLASS-73-194VS US-PATENT-4, 122, 712	c37 N79-13364 NASA-CASE-LAR-10941-2 US-PATENT-APPL-SN-289048 US-PATENT-APPL-SN-395493 US-PATENT-CLASS-29-421E US-PATENT-CLASS-228-2.5 US-PATENT-CLASS-228-107 US-PATENT-3, 797, 098 US-PATENT-4, 106, 687
c35 N79-12416	NASA-CASE-NPO-14079-1 US-PATENT-APPL-SN-958573	c72 N79-13826 NASA-CASE-NPO-13993-1 US-PATENT-APPL-SN-782463 US-PATENT-CLASS-331-94.5L US-PATENT-CLASS-331-94.5R US-PATENT-CLASS-331-94.5PR US-PATENT-4, 107, 627
c37 N79-12445	NASA-CASE-LEW-12991-1 US-PATENT-APPL-SN-961832	c74 N79-13855 NASA-CASE-NFS-23052-2 US-PATENT-APPL-SN-590183 US-PATENT-APPL-SN-772165 US-PATENT-CLASS-35-12C US-PATENT-CLASS-35-12W US-PATENT-CLASS-358-104 US-PATENT-4, 106, 218
c37 N79-12446	NASA-CASE-NPO-14395-1 US-PATENT-APPL-SN-961833	c07 N79-14095 NASA-CASE-LEW-13050-1 US-PATENT-APPL-SN-513346 US-PATENT-CLASS-416-157B US-PATENT-CLASS-416-160 US-PATENT-CLASS-416-162 US-PATENT-CLASS-416-167 US-PATENT-4, 124, 330
c44 N79-12541	NASA-CASE-NPO-14100-1 US-PATENT-APPL-SN-861391 US-PATENT-CLASS-324-20R US-PATENT-CLASS-324-22 US-PATENT-4, 122, 383	c07 N79-14096 NASA-CASE-LEW-12389-3 US-PATENT-APPL-SN-552108 US-PATENT-APPL-SN-753452 US-PATENT-CLASS-60-39.31 US-PATENT-CLASS-60-226A US-PATENT-CLASS-60-226R US-PATENT-CLASS-137-15.1 US-PATENT-CLASS-244-54 US-PATENT-CLASS-415-200 US-PATENT-CLASS-415-201 US-PATENT-4, 132, 069
c45 N79-12584	NASA-CASE-HSC-16258-1 US-PATENT-APPL-SN-853705 US-PATENT-CLASS-55-73 US-PATENT-CLASS-210-50	c07 N79-14097 NASA-CASE-LEW-12378-1 US-PATENT-APPL-SN-573029 US-PATENT-CLASS-60-226A US-PATENT-CLASS-239-265.39 US-PATENT-4, 132, 068

ACCESSION NUMBER INDEX

c08 N79-14108	NASA-CASE-LAR-11868-2 US-PATENT-APPL-SN-651002 US-PATENT-APPL-SN-779429 US-PATENT-CLASS-244-46 US-PATENT-CLASS-244-90R US-PATENT-CLASS-244-218 US-PATENT-4, 132, 375	US-PATENT-4, 111, 041 NASA-CASE-LEW-12174-2 US-PATENT-APPL-SN-667929 US-PATENT-APPL-SN-853679 US-PATENT-CLASS-136-202 US-PATENT-CLASS-136-236 US-PATENT-4, 111, 718
c24 N79-14156	NASA-CASE-GSC-12207-1 US-PATENT-APPL-SN-844344 US-PATENT-CLASS-106-84 US-PATENT-CLASS-106-296 US-PATENT-CLASS-252-518 US-PATENT-4, 111, 851	NASA-CASE-LAR-12230-1 US-PATENT-APPL-SN-835628 US-PATENT-CLASS-73-48 US-PATENT-CLASS-73-147 US-PATENT-CLASS-73-714 US-PATENT-CLASS-73-721 US-PATENT-CLASS-73-756 US-PATENT-4, 111, 058
c25 N79-14169	NASA-CASE-ARC-11121-1 US-PATENT-APPL-SN-850507 US-PATENT-CLASS-23-230B US-PATENT-CLASS-204-180S US-PATENT-CLASS-204-299R US-PATENT-CLASS-204/180G US-PATENT-CLASS-424-12 US-PATENT-4, 130, 471	NASA-CASE-NPO-13569-2 US-PATENT-APPL-SN-565162 US-PATENT-APPL-SN-804035 US-PATENT-CLASS-318-573 US-PATENT-CLASS-318-594 US-PATENT-CLASS-318-640 US-PATENT-4, 132, 940
c25 N79-14171	NASA-CASE-MFS-25000-1 US-PATENT-APPL-SN-974474	NASA-CASE-LAR-11859-1 US-PATENT-APPL-SN-861396 US-PATENT-CLASS-324-57R US-PATENT-4, 130, 795
c25 N79-14172	NASA-CASE-LEW-13103-1 US-PATENT-APPL-SN-971596	NASA-CASE-GSC-12334-1 US-PATENT-APPL-SN-856464 US-PATENT-CLASS-324-0-5 US-PATENT-CLASS-331-94 US-PATENT-4, 128, 814
c25 N79-14173	NASA-CASE-LEW-13101-1 US-PATENT-APPL-SN-971473	NASA-CASE-LAR-11900-1 US-PATENT-APPL-SN-775239 US-PATENT-CLASS-74-586 US-PATENT-CLASS-403-105 US-PATENT-CLASS-416-61 US-PATENT-4, 111, 068
c25 N79-14174	NASA-CASE-LEW-13135-1 US-PATENT-APPL-SN-971475	NASA-CASE-NPO-13541-1 US-PATENT-APPL-SN-828262 US-PATENT-CLASS-81-90B US-PATENT-CLASS-81-119 US-PATENT-CLASS-81-180B US-PATENT-4, 130, 032
c27 N79-14213	NASA-CASE-NPO-13690-2 US-PATENT-APPL-SN-633876 US-PATENT-APPL-SN-858766 US-PATENT-CLASS-75-203 US-PATENT-CLASS-75-205 US-PATENT-CLASS-75-206 US-PATENT-CLASS-75-212 US-PATENT-CLASS-75-226 US-PATENT-CLASS-264-60 US-PATENT-4, 072, 532 US-PATENT-4, 131, 459	NASA-CASE-NPO-14273-1 US-PATENT-APPL-SN-969759 NASA-CASE-HSC-19672-1 US-PATENT-APPL-SN-696679 US-PATENT-CLASS-73-632 US-PATENT-CLASS-73-641 US-PATENT-CLASS-73-644 US-PATENT-CLASS-310-326 US-PATENT-CLASS-310-336 US-PATENT-4, 122, 725
c27 N79-14214	NASA-CASE-ARC-10892-2 US-PATENT-APPL-SN-589172 US-PATENT-APPL-SN-767912 US-PATENT-CLASS-427-41 US-PATENT-CLASS-427-294 US-PATENT-CLASS-428-411 US-PATENT-4, 132, 829	NASA-CASE-NPO-13921-1 US-PATENT-APPL-SN-785257 US-PATENT-CLASS-126-270 US-PATENT-CLASS-126-271 US-PATENT-4, 111, 184
c28 N79-14228	NASA-CASE-NPO-10866-1 US-PATENT-APPL-SN-849274 US-PATENT-CLASS-149-19.9 US-PATENT-CLASS-149-19.92 US-PATENT-CLASS-149-20 US-PATENT-4, 111, 729	NASA-CASE-HQN-10888-1 US-PATENT-APPL-SN-760057 US-PATENT-CLASS-74-572 US-PATENT-CLASS-188-151A US-PATENT-CLASS-188-269 US-PATENT-CLASS-303-92 US-PATENT-CLASS-415-9 US-PATENT-CLASS-416-2 US-PATENT-4, 132, 130
c32 N79-14267	NASA-CASE-NPO-13982-1 US-PATENT-APPL-SN-782464 US-PATENT-CLASS-329-122 US-PATENT-CLASS-343-14 US-PATENT-CLASS-364-458 US-PATENT-CLASS-364-604 US-PATENT-CLASS-364-728 US-PATENT-4, 112, 497	NASA-CASE-LEW-12236-2 US-PATENT-APPL-SN-760771 US-PATENT-APPL-SN-899123 US-PATENT-CLASS-136-895J US-PATENT-CLASS-357-30 US-PATENT-4, 131, 486
c32 N79-14268	NASA-CASE-NPO-14019-1 US-PATENT-APPL-SN-843308 US-PATENT-CLASS-343-5CM US-PATENT-CLASS-343-100CL US-PATENT-4, 132, 989	NASA-CASE-NPO-13579-4 US-PATENT-APPL-SN-598969 US-PATENT-APPL-SN-762363 US-PATENT-APPL-SN-906297 US-PATENT-CLASS-126-271 US-PATENT-CLASS-350-292 US-PATENT-CLASS-350-293 US-PATENT-CLASS-350-320 US-PATENT-4, 065, 053 US-PATENT-4, 131, 336
c32 N79-14272	NASA-CASE-NPO-14328-1 NASA-CASE-NPO-14579-1 NASA-CASE-NPO-14590-1 US-PATENT-APPL-SN-956160 US-PATENT-APPL-SN-14311-1 US-PATENT-APPL-SN-969762	NASA-CASE-LEW-13148-1 US-PATENT-APPL-SN-964754 NASA-CASE-NPO-13930-1 US-PATENT-APPL-SN-700467 US-PATENT-CLASS-55-15-8 US-PATENT-CLASS-128-214D
c32 N79-14276	NASA-CASE-NPO-14311-1 US-PATENT-APPL-SN-969762	
c32 N79-14277	NASA-CASE-NPO-14536-1 US-PATENT-APPL-SN-974471	
c32 N79-14278	NASA-CASE-NPO-14058-1 US-PATENT-APPL-SN-969761 NASA-CASE-KSC-11057-1 US-PATENT-APPL-SN-835544 US-PATENT-CLASS-324-72 US-PATENT-CLASS-324-102 US-PATENT-CLASS-324-112 US-PATENT-CLASS-324-113 US-PATENT-CLASS-324-133 US-PATENT-4, 112, 357	
c33 N79-14305	NASA-CASE-GSC-12411-1 US-PATENT-APPL-SN-965367 NASA-CASE-LEW-12661-1 US-PATENT-APPL-SN-837796 US-PATENT-CLASS-73-115	
c33 N79-14308		
c35 N79-14345		
c35 N79-14346		
c35 N79-14347		
c35 N79-14348		
c35 N79-14349		
c36 N79-14362		
c37 N79-14382		
c37 N79-14383		
c37 N79-14388		
c38 N79-14398		
c44 N79-14526		
c44 N79-14527		
c44 N79-14528		
c44 N79-14529		
c44 N79-14538		
c52 N79-14749		

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-128-272		US-PATENT-APPL-SN-969757
	US-PATENT-CLASS-150-1	c26 N79-16943	NASA-CASE-HFS-23816-1
	US-PATENT-CLASS-195-1.8		US-PATENT-APPL-SN-974292
	US-PATENT-CLASS-206-439	c31 N79-17029	NASA-CASE-GSC-12168-1
	US-PATENT-CLASS-210-DIG. 23		US-PATENT-APPL-SN-838337
	US-PATENT-CLASS-422-41		US-PATENT-CLASS-62-514R
	US-PATENT-CLASS-422-48		US-PATENT-CLASS-165-30
	US-PATENT-4, 132, 594		US-PATENT-CLASS-174-15CA
c52 N79-14750	NASA-CASE-GSC-12046-1		US-PATENT-CLASS-250-352
	US-PATENT-APPL-SN-680015		US-PATENT-4, 134, 447
	US-PATENT-CLASS-195-103.5K	c32 N79-17067	NASA-CASE-NPO-14588-1
	US-PATENT-CLASS-195-103.5L		US-PATENT-APPL-SN-008205
	US-PATENT-4, 132, 599	c32 N79-17068	NASA-CASE-NPO-14519-1
c52 N79-14751	NASA-CASE-NPO-13935-1		US-PATENT-APPL-SN-008207
	NASA-CASE-NPO-13944-1	c33 N79-17133	NASA-CASE-HFS-23659-1
	US-PATENT-APPL-SN-741749		US-PATENT-APPL-SN-782462
	US-PATENT-CLASS-73-633		US-PATENT-CLASS-323-44P
	US-PATENT-CLASS-73-644		US-PATENT-CLASS-336-DIG. 1
	US-PATENT-CLASS-128-2V		US-PATENT-4, 135, 127
	US-PATENT-4, 130, 112	c33 N79-17134	NASA-CASE-NPO-14426-1
c52 N79-14755	NASA-CASE-ARC-11118-2		US-PATENT-APPL-SN-009889
	US-PATENT-APPL-SN-974476	c33 N79-17135	NASA-CASE-GSC-12404-1
c52 N79-14756	NASA-CASE-HFS-23717-1		US-PATENT-APPL-SN-002925
	US-PATENT-APPL-SN-950877	c33 N79-17138	NASA-CASE-HSC-16747-1
c60 N79-14797	NASA-CASE-NPO-14554-1		US-PATENT-APPL-SN-974475
	US-PATENT-APPL-SN-974473	c35 N79-17192	NASA-CASE-LEW-11583-1
c71 N79-14871	NASA-CASE-LEW-12658-1		US-PATENT-APPL-SN-414042
	US-PATENT-APPL-SN-702115		US-PATENT-CLASS-55-118
	US-PATENT-CLASS-181-190		US-PATENT-CLASS-55-122
	US-PATENT-CLASS-181-213		US-PATENT-CLASS-55-127
	US-PATENT-CLASS-181-222		US-PATENT-CLASS-55-155
	US-PATENT-CLASS-181-293		US-PATENT-CLASS-55-241
	US-PATENT-4, 106, 587		US-PATENT-CLASS-55-242
c74 N79-14891	NASA-CASE-GSC-12225-1		US-PATENT-CLASS-55-360
	US-PATENT-APPL-SN-823566		US-PATENT-CLASS-55-407
	US-PATENT-CLASS-350-157		US-PATENT-4, 134, 744
	US-PATENT-4, 129, 357	c35 N79-17196	NASA-CASE-NPO-14372-1
c74 N79-14892	NASA-CASE-LAR-12251-1		US-PATENT-APPL-SN-956529
	US-PATENT-APPL-SN-953389	c37 N79-17217	NASA-CASE-NPO-14388-1
c76 N79-14906	NASA-CASE-HFS-23541-1		US-PATENT-APPL-SN-008208
	US-PATENT-APPL-SN-814005	c37 N79-17224	NASA-CASE-HSC-16973-1
	US-PATENT-CLASS-204-192C		US-PATENT-APPL-SN-969756
	US-PATENT-4, 111, 775	c37 N79-17225	NASA-CASE-HSC-18134-1
c76 N79-14908	NASA-CASE-NPO-14363-1		US-PATENT-APPL-SN-974472
	US-PATENT-APPL-SN-969760	c43 N79-17288	NASA-CASE-NPO-13691-1
	NASA-CASE-LAR-11797-1		US-PATENT-APPL-SN-664091
c08 N79-15057	US-PATENT-APPL-SN-969755		US-PATENT-CLASS-250-226
	NASA-CASE-GSC-12194-2		US-PATENT-CLASS-356-300
c20 N79-15151	US-PATENT-APPL-SN-971474		US-PATENT-CLASS-356-407
	NASA-CASE-ARC-10975-1		US-PATENT-CLASS-356-416
c33 N79-15245	US-PATENT-APPL-SN-799832		US-PATENT-4, 134, 683
	US-PATENT-CLASS-250-531	c44 N79-17313	NASA-CASE-LEW-12358-1
	US-PATENT-CLASS-250-540		US-PATENT-APPL-SN-776146
	US-PATENT-CLASS-250-541		US-PATENT-CLASS-429-33
	US-PATENT-4, 130, 490		US-PATENT-CLASS-429-101
c52 N79-15576	NASA-CASE-ARC-11117-1		US-PATENT-4, 133, 941
	US-PATENT-APPL-SN-003693	c44 N79-17314	NASA-CASE-NPO-13652-1
	NASA-CASE-NPO-10872-1		US-PATENT-APPL-SN-809890
c35 N79-16246	US-PATENT-APPL-SN-805549		US-PATENT-CLASS-29-572
	US-PATENT-CLASS-179-100.2CH		US-PATENT-CLASS-136-89CC
	US-PATENT-CLASS-340-174.1H		US-PATENT-CLASS-136-89P
	US-PATENT-CLASS-346-74HT		US-PATENT-4, 133, 697
	US-PATENT-3, 626, 114	c44 N79-17315	NASA-CASE-NPO-14635-1
c76 N79-16678	NASA-CASE-NPO-11336-1		US-PATENT-APPL-SN-008212
	NASA-CASE-NPO-13247-1	c74 N79-17683	NASA-CASE-NPO-14657-1
	US-PATENT-APPL-SN-302913		US-PATENT-APPL-SN-008211
	US-PATENT-CLASS-75-134D	c85 N79-17747	NASA-CASE-NPO-13847-2
	US-PATENT-CLASS-117-107		NASA-CASE-NPO-13848-2
	US-PATENT-CLASS-117-119		US-PATENT-APPL-SN-750798
	US-PATENT-CLASS-117-234		US-PATENT-CLASS-162-14
	US-PATENT-CLASS-117-235		US-PATENT-CLASS-162-29
	US-PATENT-CLASS-117-237		US-PATENT-CLASS-210-28
	US-PATENT-CLASS-117-239		US-PATENT-CLASS-210-40
	US-PATENT-CLASS-117-240		US-PATENT-CLASS-210-45
	US-PATENT-CLASS-148-6		US-PATENT-CLASS-210-54
	US-PATENT-CLASS-148-121		US-PATENT-CLASS-210-66
	US-PATENT-3, 837, 908		US-PATENT-CLASS-210-67
c02 N79-16805	NASA-CASE-LAR-12261-1		US-PATENT-CLASS-210-70
	US-PATENT-APPL-SN-964009		US-PATENT-CLASS-210-73R
c24 N79-16915	NASA-CASE-ARC-11040-1		US-PATENT-4, 134, 786
	US-PATENT-APPL-SN-778195	c02 N79-17797	NASA-CASE-PRC-11024-1
	US-PATENT-CLASS-156-331		US-PATENT-APPL-SN-015983
	US-PATENT-CLASS-428-73	c02 N79-17813	NASA-CASE-LAR-12326-1
	US-PATENT-CLASS-428-117		US-PATENT-APPL-SN-019541
	US-PATENT-CLASS-428-119		NASA-CASE-ARC-11045-1
	US-PATENT-CLASS-428-375	c05 N79-17847	US-PATENT-APPL-SN-818916
	US-PATENT-CLASS-428-458		US-PATENT-CLASS-416-51
	US-PATENT-4, 135, 519		US-PATENT-CLASS-416-88
c24 N79-16923	NASA-CASE-HSC-16934-1		US-PATENT-CLASS-416-89

ACCESSION NUMBER INDEX

	US-PATENT-CLASS-416-132R	US-PATENT-CLASS-128-2.1A
	US-PATENT-CLASS-416-138	US-PATENT-CLASS-128-2.05Z
	US-PATENT-4,137,010	US-PATENT-CLASS-128-2V
c24 N79-17916	NASA-CASE-LEW-11930-4	US-PATENT-4,109,644
	US-PATENT-APPL-SN-513611	NASA-CASE-LEW-12542-3
	US-PATENT-APPL-SN-616528	US-PATENT-APPL-SN-007083
	US-PATENT-APPL-SN-764245	NASA-CASE-LAR-12054-2
	US-PATENT-APPL-SN-860406	US-PATENT-APPL-SN-011737
	US-PATENT-CLASS-252-12.2	NASA-CASE-WOC-00428-1
	US-PATENT-CLASS-308-DIG.8	US-PATENT-APPL-SN-112999
	US-PATENT-CLASS-308-DIG.9	US-PATENT-CLASS-117-35
	US-PATENT-CLASS-308-78	US-PATENT-3,173,801
	US-PATENT-CLASS-308-87R	NASA-CASE-MSC-16800-1
	US-PATENT-CLASS-308-168	US-PATENT-APPL-SN-953313
	US-PATENT-CLASS-308-171	NASA-CASE-NPO-14525-1
	US-PATENT-CLASS-427-34	US-PATENT-APPL-SN-017885
	US-PATENT-CLASS-427-292	NASA-CASE-NPO-14502-1
	US-PATENT-CLASS-427-327	US-PATENT-APPL-SN-965366
	US-PATENT-CLASS-427-328	NASA-CASE-MSC-18107-1
	US-PATENT-CLASS-427-355	US-PATENT-APPL-SN-956168
	US-PATENT-CLASS-427-376B	NASA-CASE-GSC-12429-1
	US-PATENT-CLASS-427-376C	US-PATENT-APPL-SN-009888
	US-PATENT-3,953,343	NASA-CASE-XGS-00829-1
	US-PATENT-4,136,241	US-PATENT-APPL-SN-286824
c27 N79-18052	NASA-CASE-ARC-10915-2	US-PATENT-CLASS-269-153
	US-PATENT-APPL-SN-634304	US-PATENT-3,262,694
	US-PATENT-APPL-SN-779883	NASA-CASE-NPO-14231-1
	US-PATENT-CLASS-427-40	US-PATENT-APPL-SN-903019
	US-PATENT-CLASS-427-41	NASA-CASE-NPO-14092-1
	US-PATENT-CLASS-428-412	US-PATENT-APPL-SN-807597
	US-PATENT-CLASS-428-447	NASA-CASE-GSC-12191-1
	US-PATENT-CLASS-428-451	US-PATENT-APPL-SN-009886
	US-PATENT-4,137,365	NASA-CASE-LAR-12562-1
c31 N79-18087	NASA-CASE-ABC-11157-1	US-PATENT-APPL-SN-015995
	US-PATENT-APPL-SN-935827	NASA-CASE-LAR-12268-1
c32 N79-18154	NASA-CASE-LAR-12196-1	US-PATENT-APPL-SN-015996
	US-PATENT-APPL-SN-017887	NASA-CASE-LEW-12780-1
c32 N79-18155	NASA-CASE-NPO-14444-1	US-PATENT-APPL-SN-891370
	US-PATENT-APPL-SN-017890	US-PATENT-CLASS-323-15
c33 N79-18193	NASA-CASE-KSC-10899-1	US-PATENT-CLASS-323-20
	US-PATENT-APPL-SN-814004	US-PATENT-4,143,314
	US-PATENT-CLASS-324-52	NASA-CASE-NPO-14513-1
	US-PATENT-CLASS-324-127	US-PATENT-APPL-SN-025162
	US-PATENT-CLASS-324-133	NASA-CASE-GSC-12148-1
	US-PATENT-CLASS-340-650	US-PATENT-APPL-SN-786322
	US-PATENT-CLASS-340-664	US-PATENT-CLASS-325-58
	US-PATENT-4,110,683	US-PATENT-CLASS-325-63
c33 N79-18224	NASA-CASE-NPO-14435-1	US-PATENT-CLASS-342-179
	US-PATENT-APPL-SN-017886	US-PATENT-4,140,972
c35 N79-18296	NASA-CASE-LAR-12275-1	NASA-CASE-MSC-14653-1
	US-PATENT-APPL-SN-885065	US-PATENT-APPL-SN-831631
	US-PATENT-CLASS-356-28	US-PATENT-CLASS-358-81
	US-PATENT-CLASS-358-107	US-PATENT-CLASS-358-109
	US-PATENT-4,135,817	US-PATENT-CLASS-364-713
c36 N79-18307	NASA-CASE-LAR-12183-1	US-PATENT-4,139,862
	US-PATENT-CLASS-331-94.56	NASA-CASE-GSC-12138-1
	US-PATENT-CLASS-331-94.5P	US-PATENT-APPL-SN-779871
	US-PATENT-CLASS-788-704	US-PATENT-CLASS-310-46
	US-PATENT-4,110,703	US-PATENT-CLASS-310-82
c37 N79-18318	NASA-CASE-LEW-12131-1	US-PATENT-CLASS-310-231
	US-PATENT-APPL-SN-801290	US-PATENT-4,142,119
	US-PATENT-CLASS-415-174	NASA-CASE-NPO-13970-1
	US-PATENT-CLASS-415-200	US-PATENT-APPL-SN-023484
	US-PATENT-4,135,851	NASA-CASE-NPO-14130-1
c44 N79-18443	NASA-CASE-NPO-14058-1	US-PATENT-APPL-SN-847278
	US-PATENT-APPL-SN-824024	US-PATENT-CLASS-60-645
	US-PATENT-CLASS-60-508	US-PATENT-CLASS-60-649
	US-PATENT-CLASS-60-572	US-PATENT-CLASS-415-1
	US-PATENT-CLASS-60-641	US-PATENT-CLASS-415-143
	US-PATENT-CLASS-126-271	US-PATENT-4,141,219
	US-PATENT-CLASS-165-105	NASA-CASE-LEW-11981-2
	US-PATENT-4,135,367	US-PATENT-APPL-SN-672220
c44 N79-18444	NASA-CASE-LEW-12819-2	US-PATENT-APPL-SN-829315
	US-PATENT-APPL-SN-803823	US-PATENT-CLASS-62-268
	US-PATENT-APPL-SN-863770	US-PATENT-CLASS-62-376
	US-PATENT-CLASS-29-572	US-PATENT-CLASS-62-514R
	US-PATENT-CLASS-29-578	US-PATENT-CLASS-250-352
	US-PATENT-CLASS-29-591	US-PATENT-CLASS-313-22
	US-PATENT-CLASS-148-6.3	US-PATENT-CLASS-313-35
	US-PATENT-4,104,084	US-PATENT-4,068,495
	US-PATENT-4,135,290	US-PATENT-4,141,224
c44 N79-18445	NASA-CASE-NPO-14490-1	NASA-CASE-MSC-19514-1
	US-PATENT-APPL-SN-017884	US-PATENT-APPL-SN-772168
c44 N79-18446	NASA-CASE-NPO-14416-1	US-PATENT-CLASS-74-674
	US-PATENT-APPL-SN-014664	US-PATENT-CLASS-74-705
c44 N79-18455	NASA-CASE-LEW-12081-3	US-PATENT-CLASS-74-764
	US-PATENT-APPL-SN-009887	US-PATENT-4,141,259
c52 N79-18580	NASA-CASE-ARC-11035-1	NASA-CASE-NPO-14066-1
	US-PATENT-APPL-SN-758721	US-PATENT-APPL-SN-827464
c26 N79-19145		
c27 N79-19160		
c32 N79-19186		
c32 N79-19194		
c32 N79-19195		
c35 N79-19317		
c35 N79-19319		
c37 N79-19364		
c44 N79-19447		
c46 N79-19521		
c52 N79-19678		
c54 N79-19688		
c08 N79-20135		
c08 N79-20136		
c20 N79-20179		
c31 N79-20283		
c32 N79-20296		
c32 N79-20297		
c33 N79-20314		
c33 N79-20315		
c34 N79-20335		
c34 N79-20336		
c37 N79-20377		
c44 N79-20496		

ACCESSION NUMBER INDEX

c44 N79-20513	NASA-CASE-NPO-14619-1 US-PATENT-APPL-SN-027559	c36 N79-21333	NASA-CASE-NFS-22517-1 US-PATENT-APPL-SN-395895 US-PATENT-CLASS-315-108 US-PATENT-CLASS-331-94.56 US-PATENT-CLASS-331-94.5T US-PATENT-3,882417
c46 N79-20555	NASA-CASE-NPO-14191-1 US-PATENT-APPL-SN-830846	c36 N79-21336	NASA-CASE-NPO-14556-1 US-PATENT-APPL-SN-023485
c46 N79-20556	NASA-CASE-NPO-14192-1 US-PATENT-APPL-SN-830562	c37 N79-21345	NASA-CASE-NHS-01295-1 US-PATENT-APPL-SN-77869 US-PATENT-CLASS-55-159 US-PATENT-3,131,040
c54 N79-20746	NASA-CASE-NPO-14521-1 US-PATENT-APPL-SN-023439	c51 N79-21743	NASA-CASE-NFS-23883-1 US-PATENT-APPL-SN-017888
c60 N79-20751	NASA-CASE-NPO-13676-1 US-PATENT-APPL-SN-779415 US-PATENT-CLASS-340-347DD US-PATENT-CLASS-364-900 US-PATENT-4,139,839	c52 N79-21750	NASA-CASE-NSC-12239-1 US-PATENT-APPL-SN-292340 US-PATENT-CLASS-128.2.07 US-PATENT-3,396,719
c71 N79-20827	NASA-CASE-NPO-14005-1 US-PATENT-APPL-SN-812447 US-PATENT-CLASS-60-721 US-PATENT-CLASS-73-505 US-PATENT-CLASS-310-20 US-PATENT-CLASS-310-26 US-PATENT-CLASS-310-327 US-PATENT-CLASS-310-334 US-PATENT-CLASS-318-116 US-PATENT-4,139,806	c54 N79-21765	NASA-CASE-NHS-04928-1 US-PATENT-APPL-SN-584914 US-PATENT-CLASS-98-1 US-PATENT-3,487,765
c74 N79-20856	NASA-CASE-NPO-14174-1 US-PATENT-APPL-SN-876441 US-PATENT-CLASS-250-237G US-PATENT-CLASS-354-77 US-PATENT-CLASS-356-129 US-PATENT-4,139,291	c54 N79-21766	NASA-CASE-NHS-04673-1 US-PATENT-APPL-SN-529884 US-PATENT-CLASS-2-2.1 US-PATENT-3,514,785
c74 N79-20857	NASA-CASE-GSC-12263-1 US-PATENT-APPL-SN-817415 US-PATENT-CLASS-250-363R US-PATENT-CLASS-250-483 US-PATENT-4,142,101	c76 N79-21910	NASA-CASE-ILB-02545-1 US-PATENT-APPL-SN-430748 US-PATENT-CLASS-156-17 US-PATENT-3,429,756
c09 N79-21083	NASA-CASE-IAR-10135-1 US-PATENT-APPL-SN-648034 US-PATENT-CLASS-73-147 US-PATENT-3,453,878		
c09 N79-21084	NASA-CASE-XLE-03186-1 US-PATENT-APPL-SN-200770 US-PATENT-CLASS-89-8 US-PATENT-3,224,337		
c20 N79-21123	NASA-CASE-XMF-06884-1 US-PATENT-APPL-SN-579300 US-PATENT-CLASS-164-105 US-PATENT-3,485,290		
c20 N79-21124	NASA-CASE-XMF-05964-1 US-PATENT-APPL-SN-578397 US-PATENT-CLASS-60-243 US-PATENT-3,390,528		
c20 N79-21125	NASA-CASE-XMF-04592-1 NASA-CASE-XMF-04593-1 US-PATENT-APPL-SN-579376 US-PATENT-CLASS-60-39.74 US-PATENT-3,397,537		
c26 N79-21183	NASA-CASE-NSC-12631-3 US-PATENT-APPL-SN-006952		
c27 N79-21190	NASA-CASE-XMF-02526-1 NASA-CASE-XMF-02527-1 NASA-CASE-XMF-02783-1 US-PATENT-APPL-SN-483817 US-PATENT-CLASS-260-2 US-PATENT-3,311,571		
c27 N79-21191	NASA-CASE-XMF-06900-1 US-PATENT-APPL-SN-554959 US-PATENT-CLASS-260-67 US-PATENT-3,419,531		
c31 N79-21225	NASA-CASE-XLE-02367-1 US-PATENT-APPL-SN-400857 US-PATENT-CLASS-222-131 US-PATENT-3,215,313		
c31 N79-21226	NASA-CASE-NFS-10946-1 US-PATENT-APPL-SN-581843 US-PATENT-CLASS-156-52 US-PATENT-3,481,802		
c31 N79-21227	NASA-CASE-XMF-05757-1 US-PATENT-APPL-SN-562558 US-PATENT-CLASS-117-43 US-PATENT-3,511,680		
c33 N79-21264	NASA-CASE-XMF-05373-1 US-PATENT-APPL-SN-474815 US-PATENT-CLASS-335-216 US-PATENT-3,310,765		
c33 N79-21265	NASA-CASE-XMF-02899-1 US-PATENT-APPL-SN-472643 US-PATENT-CLASS-317-245 US-PATENT-3,356,917		
c34 N79-21313	NASA-CASE-LEW-12441-2 US-PATENT-APPL-SN-856462		

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